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The CAVALRY JOURNAL

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Organized November 9, 1885

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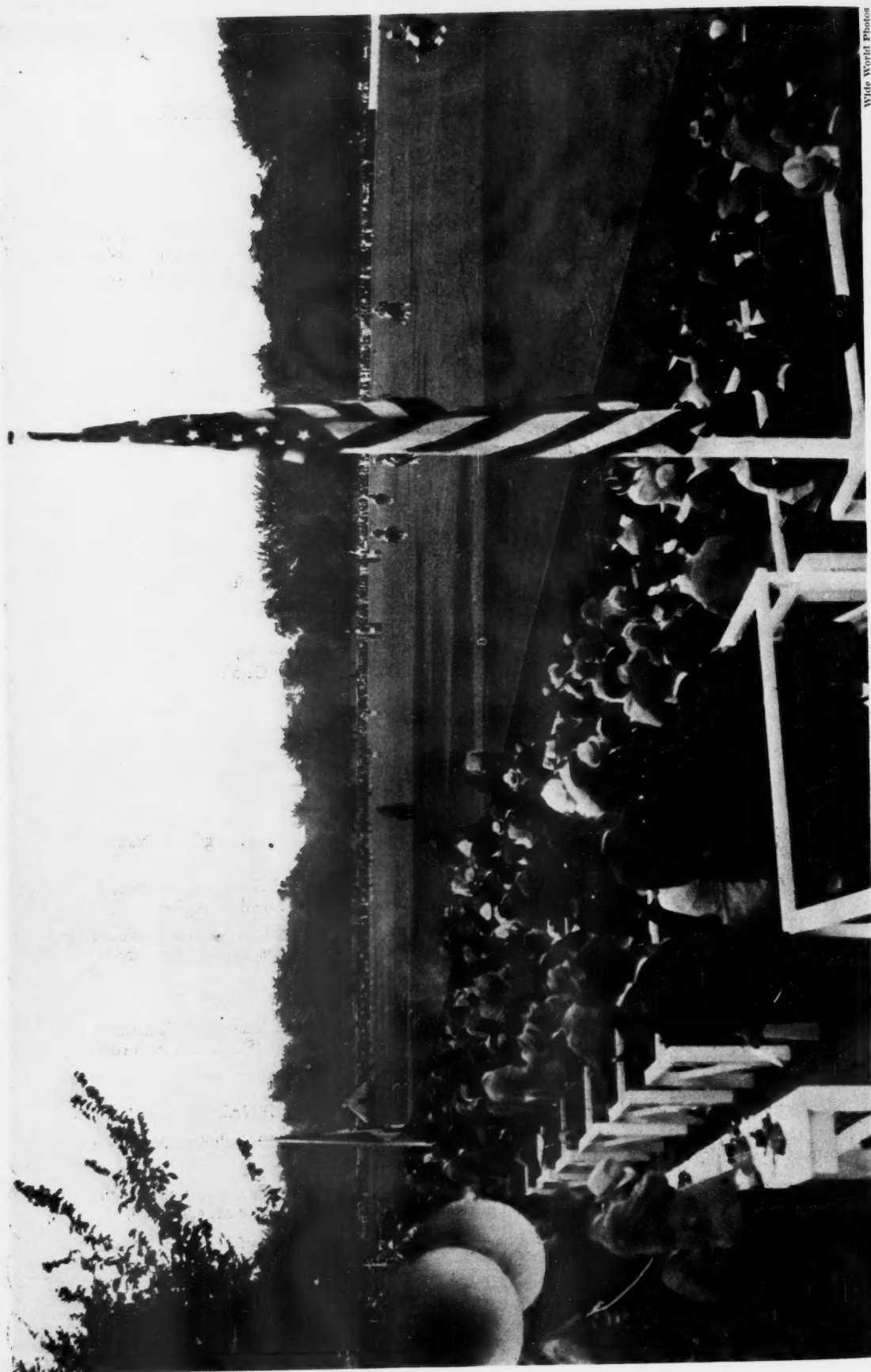
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International Polo Matches, Potomac Park

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MODERN CAVALRY: A Discussion on Employment, Troop Leading, Organization, and Training*

By G. BRANDT,

Generalleutnant, German Army, Retired; formerly Inspector-General of Cavalry.

Translated from the German by F. W. MERTEN.

PREFACE

In the introduction to his book, entitled "Cavalry and the Art of War," which was published in 1633, Johann Jacob v. Wallhausen comes to terms with those who "will not cease wondering at the great want of diligence exhibited by the scribes, both old and new, in the description of 'Cavalry,' so noble an element in the art of war." Hence, there is nothing new in the fact that less is written on cavalry than on any other arm. It may be claimed, however, that this is due less to the "want of diligence" on the part of the cavalryman than to the circumstance that cavalry constitutes only a small part of an army and, therefore, receives in military literature less frequent treatment than infantry and artillery, which is quite natural.

And yet the very fact that complaints are raised at all regarding the want of cavalry treatises proves that, from time to time, there exists a necessity for such writings. A need of that kind asserts itself particularly whenever changes have occurred in cavalry tactics.

This book is to furnish material to those who desire to make a study of the changes cavalry tactics have undergone since the World War. It is to broaden appreciation of the nature and characteristics of the cavalry arm and to contribute towards the recognition of the needs and demands of the mounted service. By accomplishing this, the book will also be useful to the arm itself.

The Treaty of Versailles has forced upon us outrageous limitations as to armament. The weapons which are forbidden to us, though possessed by our neighbors in large quantities, are merely mentioned in this book without being treated in detail. Inasmuch as we have only a theoretical knowledge, rather than a practical one, of these weapons, a discussion of them would be of limited value.

Specific stress is laid on the discussion of such questions as are the outcome of changes in cavalry tactics and as affect troop leading, employment, tactics, organization, and training.

In practically every chapter, there are two features that are emphasized in particular: namely, the employment of cavalry in masses which alone will promise major success; and the ability to develop for action directly from march formation. The latter constitutes a maneuver in which the mobility and celerity of the arm may be utilized to their

fullest extent. If, by following this plan, repetitions have occurred in the text, the reader's indulgence is asked, in view of the importance attached to these characteristics as regards employment and action of cavalry.

Berlin, Spring of 1931.

G. BRANDT.

HISTORICAL RETROSPECT

IF WE delve into history, we shall find that the horse was used first as a draft animal and only at a later period as a mount. To prove this, authors have cited discoveries that have been made in the process of excavating monuments and relics of ancient times; the earliest of these finds are in the form of pictures representing horses drawing a wagon. Plastics and pictures of horsemen, however, date from a later period.

One cannot help but believe that this conception rests on faulty premises. These historical finds originated with tribes that had attained a certain degree of civilization. On the other hand, the primitive nations, and particularly the nomadic tribes, which since the earliest times have been engaged in horse breeding, have left us no monuments of their customs and practices.

The construction of wagon and harness presupposes considerable skill. It must be assumed impossible for the ancient tribes to have possessed in the first stages of their existence such craftsmanship as can be acquired only in the course of a long period. Yet it is highly improbable that, during all this time preceding the era of wagons, they should have refrained from employing the horse as a mount. Inasmuch as riding a horse requires less skill than the manufacture of wagon and harness, it may be taken for granted that pastoral tribes, as for instance the Scythians, adopted the horse as a mount, if for no other purpose than to guard and tend their large herds.

On the other hand, it is quite probable that the civilized nations of antiquity which have left us traces of their daily life did not introduce the horse until they had acquired a higher degree of culture. In view of the fact that by that time these nations already possessed agricultural implements and, perhaps, also ox-carts, we may well imagine that they employed the horse first as a draft animal and only later as a mount. Although these nations were familiar with animal-drawn transportation, riding a horse must have been to them a novel experience indeed. It is difficult, however, to reconcile oneself to the thought that those nomadic tribes should have ventured upon their

**Moderne Kavallerie*, published by E. S. Mittler & Sohn, Berlin. American translation rights owned by the United States Cavalry Association.

†Germany. Tr.

raids riding on a wagon rather than on the back of a horse.

Regardless of whichever conception we may share—whether the horse first carried man by means of a wagon or on his back—the first use of the horse for war purposes was based upon the need for a medium to carry the fighting man and his weapon near the enemy with speed and without fatiguing the warrior. Yet the actual battles staged during the primitive ages most likely were fought on foot. Who, when studying the employment of modern cavalry, does not instinctively think of Ben Akiba?¹ "There is nothing new under the sun." Like any other art, the art of war, too, moves in curves. To the naked eye, no one curve compares exactly with the other; in reality, however, we witness always the same spectacle: namely, a continuous rise and fall with highs and lows to mark the vital changes. Thus the old forms change; and though they are superseded by new ones, the spirit, the original character and purpose still remain.

In the beginning, the horse did not serve the warrior as a means of combat, but only as a means of transportation. It was not until a later period that the horse was developed for use in battle. He was then used for the purpose of riding the enemy down by means of the shock that increased gaits would supply. Moreover, the horse served as a speedy carrier of the rider, who now could use his weapon from an advantageous height.

The object of this treatise is not, however, to present a history of cavalry. History shall be referred to only in the instances where it furnishes examples showing how individual nations and great men recognized, developed and exploited the characteristics of cavalry with respect to mobility and fighting power, in order to win decisive victories. Mobility and fighting power are the driving forces that will develop cavalry. No doubt, thus far the journey has been long. Originally, the horseman fought his battle as an individual. There was no cavalry, as we understand the term, until the riders had learned to maintain some sort of orderly formation.

We have observed that, in the earliest stages of cavalry development, it was the speed of the horse that was exploited for the purpose of carrying the rider within reach of the enemy, thereby preserving the warrior's strength, so as to enable him to fight on foot upon reaching the battlefield. Yet it is not known to us just at what period the idea materialized to add to this form of approach march the moment of surprise; the latter was accomplished by sending the rider, who was afterwards to fight on foot, with great speed against the most vulnerable part of the enemy. It is obvious, however, that what appears to be a new idea is in reality quite old.

When the riders had learned later to fight also on horseback, they made use of two different methods whereby to derive the greatest advantage from their mobility. On the one hand they would encircle the enemy and inflict losses upon him with the aid of their bows or slings; yet,

on the other hand, they would retreat before any hostile assault, only to return to this method of attack as soon as the adversary halted his pursuit. These tactics were typical of nomadic tribes. Of the ancient nations, the Scythians were the foremost representatives of this method of fighting. Particularly against a less mobile enemy was this form of tactics employed to good advantage. The method was so successful that, when the light cavalry was finally organized during a later epoch, an arm was then created which was equipped and trained especially for this system of fighting. Others, riders on heavy mounts, clad in armor and provided with weapons designed for hand-to-hand fighting, sought in the mobility of their horses the means wherewith to ride down the enemy and disperse his formations. Such mounted troops we find principally among nations of an early civilization which themselves were not engaged in horse-breeding to any extent, but had to import their horses from adjacent countries. Owing to the fact that the weight of these riders, mail-clad as they were, required a powerful mount, the maintenance of these troops was more expensive than that of the light cavalry, whose horse material, arms and equipment, involved a much smaller cost.

Both types of cavalry, the light as well as the heavy, have existed side by side throughout the centuries. It was not until after the World War that they were forced to give way to one standard type of cavalry.

In history we find that, for distant reconnaissance, security and pursuit, the mobility and speed of mounted troops were utilized on a large scale for the first time by Alexander the Great. Even today this instance may serve us as an example.

Alexander knew how to employ his cavalry in masses and, by creating a mass of maneuver, relied on the mounted arm to decide his battles. But not only in actual combat did he know how to use his cavalry; he employed it in just as masterly a fashion in the execution of strategic missions. Whereas at his accession to the throne the strength of his cavalry, as compared to that of his infantry, varied between the ratio of 1:12 and of 1:15, the horsemen at the beginning of the war against Persia constituted already one-sixth of the total strength of his forces. Nearly all his battles were won by a judicious employment of cavalry masses.

The cavalry of Alexander the Great consisted of three types. His heavy troopers wore a shirt of mail, helmet and shinguards made of brass, and carried a sword as well as a short javelin. The light cavalry, designed primarily for missions of reconnaissance and security, were armed with a far-reaching bow and a lance, 13 feet in length. The "dual fighters" or "dimachae," as they were called were Alexander's own creation. Constituting a mean between the heavy and light cavalry, these soldiers were prepared to fight on horseback as well as on foot. Their organization was based upon the same principle which had led to the employment of the earliest war-chariots, i. e. to convey the armed soldier to the battlefield quickly and without tiring him out.

¹Ben Akiba, a character in Gutzkow's tragedy, entitled *Uriel Acosta*, makes the trite but true observation: "Alles ist schon einmal dagewesen." Tr.

By that time the art of war had progressed far enough to bring out the full importance of rapid evolutions designed to gain distance on the enemy. Alexander had recognized the advantage of mounted troops—capable of fighting on foot as well as on horseback—for operations in broken terrain where war-chariots could not be employed.

The Macedonian King, moreover, improved his cavalry considerably. He reduced the customary battle formation from a depth of 16 ranks to one of eight, thus broadening the front, so as to be better able to outflank and envelop the enemy. At the same time, he increased the *ila*, or squadron, from a strength of 64 horses to one of 250. In the intervals between the major cavalry units he placed lightly armed infantry as supports for the horsemen. It would also appear that Alexander was first to put into practice the idea of making use of the shock action inherent in man and mount for breaking through the enemy's front. He realized the strong moral effect which a charge by a large, solid body of cavalry would have upon the enemy.

As has been mentioned before, Alexander was the first military leader in history fully to appreciate the importance that attaches to the employment of cavalry masses in battle. These cavalry masses practically always played the decisive rôle in battle; to this end, they were stationed on one flank, but usually on both flanks, of the battle line, and commanded by Alexander himself or by one of his most trusted friends, with the understanding that they must support each other as well as the infantry. Equally excellent, this arm—often reinforced by light infantry—would constitute the advance guard or achieve outstanding performances in missions of pursuit. While following upon the heels of Darius, who had been captured by the traitor Bessus, this cavalry in the course of 11 days covered some 370 miles, marching chiefly through mountainous country, and, during the last stage of this march, rode almost 60 miles before halting. The pursuit after the Battle of Arbela will, likewise, forever retain a place of honor in the history of cavalry. By evening of the day after the battle, the cavalry had covered 100 miles in pursuit of the enemy.

Reconnaissance and security, support in battle, and pursuit were the missions which Alexander the Great gave to his cavalry squadrons. Allowing for the fullest development of all the potentialities and characteristics of cavalry, these missions have not changed throughout the ages. Even today these very same tasks confront modern cavalry. Although the progress of civilization and technical inventions may perhaps have rendered the solution of these problems more difficult, yet all the achievements of the human brain have been unable to alter the problems themselves.

If we realize these facts, we shall also appreciate the great value involved in a historical study of the ancient campaigns for the principles of strategy are constant. On the other hand, he who in military history seeks examples for the purpose of slavish imitation will invariably make

a wrong decision. Never will two men find themselves in identically the same situation. Though their situations may be similar, a close inspection will reveal fundamental differences as to details. "The infinite resources of nature," to quote Frederick the Great, "continually present us with a different picture and never repeat the same events. The events of the past are merely to furnish food for our power of imagination and equip our minds with knowledge. Historical events then form a collection of ideas and supply us with the raw material which must first be refined in the melting pot of our judgment. In all cases it is our sound judgment which must dictate our actions."

By mobility alone, however, wars are not won. Mobility must be joined by fighting power. To lend great fighting power to cavalry has been the aim throughout the ages. In part, this object was sought in the weapon of the rider, in which case the horse served merely as a means to the end; in part, it was looked for in the shock of the attack, whereby the horse himself was to constitute a weapon with which to run down the enemy; or again, the desired fighting power was to be obtained by combining these two methods.

The ancestor of the cavalryman, mounted on a small, unkempt animal, would cautiously but quickly move into the rear of his unsuspecting foe, dismount under cover, stealthily approach the enemy and, by suddenly hurling a rock, break his skull. This type of mounted fighting man even today serves as a model for the combination of mobility and fighting power, of strategy and force; he exemplifies those characteristics which the modern cavalry soldier can dispense with as little now as the horseman of yore could afford to be without them.

To delve any deeper into the history of ancient cavalry would far exceed the scope of this book. Yet we may learn from this history an unlimited number of undying facts. For instance, the manner in which Hasdrubal, the great cavalry general of Hannibal, employed his cavalry; or the tactics whereby the squadrons of the Parthians under Surena, without the support of any other arm, brought defeat to Crassus's legions; or the cavalry tactics of a Cæsar—all are worthy of study even to this day.

Mobility, suitable organization and armament, fighting power raised to the highest level of its epoch, fullest strategic exploitation of the characteristics of the mounted arm, and massed employment represented the means whereby the captains of the ancients achieved the victories that decided their campaigns. And yet all these factors would never have produced such feats, had there not stood at the head of the legions brilliant commanders, men who were bold and courageous enough to make full use of the sharp instrument in their hands, and ingenious enough to create and grasp the right moment. To seize the favorable opportunity always requires resoluteness and courage; and so the history of cavalry represents also the history of its great leaders.

It is commonly believed, and erroneously so, that the invention of firearms was the only cause which removed

the cavalry from the leading position it held theretofore. Even among the ancients, a cavalry attack against the front of an unwavering phalanx offered but little hope for success. Consequently, we observe quite early the endeavors of all great cavalry leaders; namely, to launch their squadrons against the more vulnerable flanks of the hostile infantry array and to risk frontal attacks only where the formation of the enemy has been shaken. Not until the advent of that era in which infantry tactics began to decline was the horse soldier able to regain the dominant position he was destined to hold throughout the wars of knighthood and to retain to the end of the Middle Ages.

The power of penetration of light firearms, as well as their general use in combat, was rather limited in the beginning. The fire of the new weapon was very inaccurate; moreover, the loading required so much time that many years and important inventions were necessary before the firearm was sufficiently perfected to gain superiority over the mail-clad rider.

The dominating position enjoyed by the cavalry was shaken only when the foot troops had learned again to maneuver and fight in close formations like the armies of the ancient Greeks and Romans. It was not the firearm, but rather the improvement of infantry tactics, which compelled the cavalry to return to the military doctrines of the ancients and to develop a method of fighting commensurate with the strength inherent in infantry masses. The Battle of Morgarten,² in which the Swiss foot soldiery was facing a host of riders, illustrates that, though the cavalry was armed with lances, the resurrected infantry tactics of the olden days outclassed those of the cavalry.

The mounted troops composed of knights in armor must, however, not be mistaken for cavalry in its present-day conception. The latter represents tactical units which, by means of a solid mass formation, rather than by the action of the individual horseman, are expected to ride down the enemy. This requires a high degree of discipline which admits of only a very limited range for individual initiative. The knight, however, did not subject himself to this discipline. He remained an individual fighter; and so he would charge single-handed into the hostile throng, eager to excel his peers in boldness and gallantry.

With the passing of antiquity and the simultaneous decline of infantry tactics, the last representatives of which were the Roman legions, cavalry tactics also began to deteriorate. It was no longer necessary to oppose unorganized foot troops with cavalry in mass formation. And so mounted combat degenerated into individual fighting. We all know that in a race the winning horse will develop his greatest speed only if an equal competitor seriously contests the victory. Yet the cavalry of that period lacked the rival who might have served as a stimulus to organize its powers along strictly military lines and

develop that organization and training, without which the horsemen of Alexander, Hannibal and Caesar would never have conquered their enemies. Hence, for the study of cavalry history, the campaigns of these great commanders are more instructive than all the battles of the Middle Ages.

In the course of time, the development of infantry tactics, as well as the improvements of firearms, caused also the cavalry of necessity to revise its outworn tactics of knighthood days. In order to preserve its invulnerability of the past, the cavalry at first so overloaded itself with protective armor that it not only lost a great deal of its mobility, but also became virtually disqualified to inflict any real harm on the enemy. With the gradual increase in the penetrative power of firearms—at that, the bullet would perforate the heavy cuirass only if it struck the armor squarely and if fired from the shortest distance—the cavalry learned to recognize in the musket its most dangerous enemy and, therefore, took likewise to this new invention. Yet, upon adopting it, the cavalry completely forgot the mounted charge with the *arme blanche*.

It was no less critical an observer than Machiavelli, who in 1518 passed the following judgment on cavalry: "While it is entirely justifiable to assign some cavalry to the support of infantry, the mounted arm must not be considered to constitute the principal weapon of an army. The great importance of cavalry then manifests itself foremost in such missions as reconnaissance, patrolling of roads, execution of raids, devastation of hostile territory, harassing the enemy in his bivouacs, and cutting off his supplies. During battles, however, in which as a rule the fate of the nation is at stake, the brunt of the fighting should be borne by the foot soldiers of the army; for cavalry is better fitted to pursue a routed and fleeing enemy than for any other purpose."

It was Gustavus Adolphus who, in the Thirty Years' War, at length advanced the development of cavalry to a certain extent. He reduced the weight of the equipment. The light cavalry discarded all of its protective armor. The Swedish King, moreover, prohibited the caracoling of the horses, an elaborate maneuver, commonly used to induce the hostile troops to discharge their pieces, before delivering the charge and engaging the enemy in hand-to-hand fighting. During the attack, he permitted the pistol to be fired only by the front rank, whereupon the riders were required to reach for their sabers and ride down the enemy. Again it was Gustavus Adolphus who conceived the idea of increasing the fighting power of cavalry by attaching to it light mobile artillery. He introduced guns which he rendered quite mobile by using weak, leather-reinforced barrels, so they could keep up with the cavalry. This experiment was abandoned, however, inasmuch as the leather jacket on the guns proved inadequate; besides, the barrels were too light and would burst when fired too long.

Yet, notwithstanding all this, Gustavus Adolphus deserves great praise for having given new life to the ideas

²Fought in 1315; the Swiss defeated an army under Leopold of Austria. Tr.

1934

of an Alexander and a Hannibal after a period of decline in the history of cavalry. For he taught his squadrons and regiments to seek the decision, as in the days of old, in hand-to-hand fighting and the bold thrust from the horse.

Before passing to a review of the history of modern cavalry, it will be of value to dwell briefly upon a migratory movement which, though it had its origin in the heart of Asia, surged nevertheless against the very boundaries of far-away Germany. This movement is the history of the Mongolian horsemen under Genghis Khan.

At the end of the twelfth century and the beginning of the thirteenth, Genghis Khan, in the barren steppes of the Gobi Desert, created from a small body of troops an immense cavalry force, which in a short time conquered an empire extending from the coast of the Pacific to that of the Mediterranean. Continually waging war against the neighboring tribes, this force developed into a highly efficient cavalry organization which was divided into units of 10, 100, 1,000, and 10,000 horsemen.

The body of 10,000 men, called *tuman*, constituted the major cavalry unit which Genghis Khan employed in a fashion that would meet the requirements of modern strategy in every respect. Owing to the fact that a reserve of two or three horses for each rider accompanied the troops, the strength of the *tuman* reached the substantial number of from 30,000 to 40,000 horses. Consequently, it may be compared with a cavalry corps rather than with a cavalry division.

The attack used to be opened by a charge of mounted archers, who would encircle their enemy and cover him with a hail of arrows. Yet these light horsemen were experts in evading counter-attacks on the part of the enemy. When the enemy was finally shaken or his ranks were disorganized by the onslaught of the light cavalry, the heavy cavalry would launch its attack. At first, the armor of the heavy cavalry consisted of hardened hides; later the men donned the iron cuirass and coat of mail they had taken from the conquered foe. In the Battle of Liegnitz, the protective armor worn by the troops of Genghis Khan is said to have been equally as strong as that of the knights.

The march performances of these squadrons were most remarkable. Instances are on record in which the Mongolians after a successful battle mounted their reserve horses in the evening and suddenly appeared on the following morning at a point 30 miles away. The mobility of this cavalry was further enhanced by the fact that the troops would carry their entire supplies on pack horses, which were driven along in a herd. In times of emergency, horses were slaughtered to supply the troops with meat.

Inasmuch as the Mongolians possessed no fixed abiding places, they offered the enemy no objectives for an attack. In mobility their horsemen excelled any foe, and so they were able to evade any encounter they did not care to accept.

Then, too, the horsemen were experienced in the capture of fortified towns. After the conquest of China, they

added to their ranks Chinese craftsmen skilled in the construction of battering-rams. The population of the invaded country was commanded to build field-works, while the attack itself was staged by the dismounted riders.

Once a year Genghis Khan would assemble at his court the various sub-chiefs of his forces for a conference. Some of the commanders summoned from the most distant parts of the empire had to cover on horseback more than 2,000 miles; after making their reports and receiving orders for the next campaign, they would immediately return to their respective stations over the same route and in the same manner.

The Mongolians of that age must not be fancied, however, as a wild, disorderly mob which would ride through the countries plundering and leaving destruction along their trail. On the contrary, they constituted a well-organized nation, led by an ingenious conqueror who was a master in the strategic employment of his large cavalry units.

In modern history, the noble achievements of cavalry are linked to the names of Frederick the Great and Napoleon I. Both accomplished feats with their cavalry, the like of which will be found only in the history of the cavalry of the ancients. Frederick the Great lifted his horse regiments to an unrivaled plane of superiority as combat cavalry; but we recognize in Napoleon I the father of our modern army cavalry who has yet to find his peer in the strategic employment of cavalry divisions and cavalry corps.

As he himself has stated in his memoirs dealing with the history of the House of Brandenburg, Frederick the Great took over from his father a cavalry that was utterly neglected. None of the officers knew their profession. The soldiers were afraid of their horses, hardly ever mounted them, and had learned to drill only on foot almost like the infantry. Owing to the large horses and heavy men, this cavalry was so unwieldy that its organization had to be changed completely during the First Silesian War.

In the Battle of Malplaquet,^a Frederick William I, Frederick's father, had witnessed three retreats of the French cavalry; on the other hand, this cavalry had no opportunity to excel during the sieges of Menin, Tournai and Stralsund. Prince Leopold of Anhalt-Dessau was similarly biased. Judging from his experiences at Hochstaedt, he must have considered this arm as unreliable. Such unfortunate prejudice entailed most disastrous results for the cavalry. The main interest now shifted to the sole improvement and training of the infantry; as a consequence, the cavalry proved a complete failure when it went into action during the First Silesian War.

Immediately after this campaign, Frederick the Great set to work to reorganize the cavalry. All men too tall and awkward for mounted service were transferred to the

^aA hamlet in the Department of Nord, France, noted for the victory of Marlborough and Prince Eugene over the French in 1709. Tr.

infantry. Firing from the horse prior to the charge was prohibited. Equitation received its due attention; "for, how will men, who are to fight on horseback, be able to defeat the enemy, if they are afraid of their mounts." Each regiment was required to build a riding-hall whereupon thorough training of the individual was taken up. No soldier was admitted to a regular squadron before he had acquired a perfect seat and learned to master his horse. It was due to this assiduous training of the individual that the cavalry of Frederick learned so quickly to maneuver in large bodies and acquired cohesion for major attacks.

The squadron and regiments learned to execute swiftly and in an orderly manner all movements and evolutions and, above all, to launch a furious charge without wavering or losing their formation. It was impressed upon the cavalry that the decisive factor in cavalry charges was not the size of the individual horse, but the shock action of the whole.

In the training regulations, published June 1, 1743, we may read the following:

"Every officer of the cavalry must firmly bear in mind that only two factors are essential for defeating the enemy: first, to charge him with the greatest possible speed and force; and second, to gain his flank. Nor must any officer of the cavalry ever lose sight of the necessity of trying to attack the enemy in flank, in order to rout him as quickly as possible."

While training his cuirassiers and dragoons, i. e. the shock cavalry, in this manner, Frederick the Great did not fail, however, to transform his light cavalry, the hussars, into an efficient force. In addition, he increased the number of their regiments. In the field, the light cavalry was to be the eyes and ears of the army. Its chief task, therefore, consisted in duties of reconnaissance and communication. Yet the hussars were, moreover, called upon to execute the same combat missions as the cuirassiers and dragoons.

In conjunction with the training of the troops, the education and training of the cavalry officers was particularly stressed. One point especially Frederick always insisted upon: strictest adherence on the part of his officers to the instructions and regulations he prescribed.

The advice which Frederick gave his officers on the subject of troop instruction may serve as a model even today. Incessantly he would refer them to those factors that were of cardinal importance. For the purpose of education, he regarded as unavoidable the constant repetition of vital matters, regardless of how frequently they would have to be mentioned, even though critics might denounce this method as fatiguing and stupefying. *Rupetitio mater studiorum*. Whereas the King required strictest attention to the "détails" of the daily routine, he was also ever anxious that his officers should attain the highest standard in all branches of their profession; for he reasoned that such high demands would afford to the individual officer the widest perspective, as well as the deepest insight.

Soon the Second Silesian War offered an opportunity to

subject the new tactics to a thorough test. They did prove their soundness. The names of Landshut, Hohenfriedberg, Soor, and Hennersdorf all testify to the correctness of this assertion.

And yet the King was not entirely satisfied. The exceptional mental vision and wisdom of this great royal leader are best described by referring to the fact that for mistakes he would reproach not only his subordinates, but himself as well. In his "Instructions to the Major Generals of the Cavalry," of August 14, 1748, Frederick has this to say: "Having found to my special displeasure that the Generals had not always accomplished what I ordinarily expect of them, I have finally become fully convinced that, in a certain measure, the fault has been mine. The Generals have been without adequate instructions from me; and it is impossible that a man should guess another man's thoughts, if they are not explained to him."

How, then, did Frederick the Great employ his cavalry in battle? In conformity with the linear tactics of those days, he ordinarily formed his order of battle by placing the infantry in the center and stationing his entire cavalry on the exposed flank. If both flanks were exposed, a small cavalry force was attached also to the less exposed flank for local protection. The great mass of the cavalry, however, was always placed on that flank on which the main effort was to be made. By means of the massed charge, the cavalry was first to repulse the hostile cavalry and then envelop the enemy's infantry.

In a plan formulated by Frederick the Great in 1774 for the battle formation of a Prussian so-called "cavalry wing," we find disposed in the first line 20 squadrons of cuirassiers, in the second line 15 squadrons of dragoons, and in the third line 20 squadrons of hussars; in addition, there were drawn up in column on the extreme flank of the first line 10 squadrons of hussars. All told, there were 65 squadrons, comprising an effective strength of 8,640 horses. This number corresponds to the combat strength of a cavalry corps. One may well imagine what an overpowering impression the uniform, solid onslaught of so large a mass of cavalry must have had on the enemy.

In all of his battles, the King was ever seeking to decide the issue by concentrating all available squadrons for a charge against the enemy's flank. In order to be as strong as possible on the flank from which the blow was to be struck, he would order also his hussars, i. e. the light cavalry, to take part in the attack.

Was it merely by chance that all great commanders—men who appreciated the nature and characteristics of the cavalry and devoted all their care and energy towards the development of that arm—had at their sides also great cavalry leaders? Alexander the Great personally rode at the head of his cavalry; whereas one cannot picture to oneself Hasdrubal without Hannibal, Seydlitz and Zieten without Frederick the Great, Murat without Napoleon I.

Words like "swift," "speedy," "brisk" are repeated in practically every instruction issued to his cavalry by

Frederick the Great. Thanks to these exhortations, his cavalry developed that celerity and mobility, that fiery impulse, which enabled them on all occasions to charge the enemy with sword in hand. "The Prussians must always attack the enemy."

And yet this offensive spirit alone would never have made the Prussian cavalry the most efficient mounted arm of the Europe of that epoch, had this cavalry not possessed in its King a commander who, by recognizing its nature and needs, gave it his entire attention and never tired of training the cavalry in peace, so that it might be prepared for war. It was Frederick who, furthermore, realized that the success of cavalry depends on massed employment and who, finally, in a masterly fashion made possible the victories of his glorious regiments by placing them for battle in the right place, at the right time.

Napoleon I, in his time, resurrected the strategical employment of cavalry. He was fully aware of the importance of light cavalry for missions of reconnaissance and screening and, at the same time, recognized the value of heavy cavalry for massed employment in battle. By giving concrete shape to this conviction—namely, that mounted attacks would bring great success, only if the cavalry were employed in mass—he organized his regiments, whose strength at the time was being dissipated in small detachments, into brigades and divisions. Indeed, he was so firmly convinced of his theory as to the soundness of employing cavalry in large masses that in his final organization he even exceeded the cavalry division and adopted the cavalry corps as the major unit.

Because of the poor results achieved in horse training, Napoleon's cavalry never acquired that skill of maneuvering which the cavalry of Frederick the Great had possessed. In order to preserve cohesion and orderly formation, the French cavalry would execute its massed attacks at a trot. This slow gait, however, was the cause of such heavy losses from hostile fire that the Emperor, in the hope of reducing the risk, proceeded to equip a number of regiments with a cuirass and a steel helmet. That this innovation constituted an effective remedy is proved by the high reputation which these cuirassier regiments acquired later in battle.

The demands made upon the cavalry by Napoleon, are expressed in his *Commentaires*: "Cavalry is called upon to play two rôles differing from each other considerably. While on the march, it must divide up its forces for cross-country rides, reconnaissance and pursuit; in battle, however, the cavalry will be successful, only if it delivers massed charges against weak points and breaches in the enemy's lines."

These two principles defining the employment of cavalry, so totally at variance with each other, are clearly demonstrated in all of Napoleon's campaigns, wherever cavalry was used on a large scale.

To judge from his battle formations, no cavalry was ever attached to the infantry divisions. If, in the course of the various operations, infantry divisions or corps were

committed to action separately, they were frequently reinforced by cavalry brigades or cavalry divisions, depending upon the nature of their missions.

The main body of the cavalry—under the command of a cavalry general who was held directly responsible by the Emperor and employed by the latter sometimes in one direction, sometimes in another—would unfold its strength independently in front of the army and often march several days in advance of the infantry, for the purpose of reconnoitering and screening. As many as 76 squadrons would be used to perform this duty. The Emperor, therefore, was able to maintain a highly efficient service of security and information in all of his campaigns.

The cavalry general, operating in front of the army, always had one or more infantry divisions under his control; these would follow closely behind the cavalry, and whenever the latter encountered strong elements of enemy infantry, it was the duty of the attached divisions to break that resistance. Napoleon was perfectly aware of the disadvantage involved in having to bring up infantry at whatever time such resistance was met. While exiled on the island of St. Helena, Napoleon wrote this: "The entire light and heavy cavalry should be armed with the carbine and should be capable of fighting with firearms in the same manner as the infantry company and battalion."

If the situation demanded a speedy massing of a large body of cavalry against a certain point, the Emperor did not hesitate to draw on the cavalry divisions that were temporarily attached to the infantry divisions and corps and, for the time being, to deprive those units of all cavalry. Although Napoleon strictly adhered to the organization of major cavalry units as such, he never placed any restrictions upon himself, with respect to a liberal employment of cavalry as a mass of maneuver, by permanently assigning such units to this infantry.

Ever since the downfall of Napoleon's Empire, these principles have been studied, and even the campaigns of 1866 and 1870-1871 were fought in the spirit of the Emperor's strategy. It is astonishing, therefore, that thus far nothing has been done toward properly cultivating and developing this arm, upon whose employment rests the possibility of making those calculations and combinations that will enable a commander to make use of the modern large armies along the lines of Napoleonic strategy. Particularly in a small army, it is worthy of earnest consideration how to raise to the highest standard of efficiency that arm which is to supply the military leader with the foundation for his decisions. It is the mission of cavalry to make it possible for the commander to have at a given point, be it on the offensive or the defensive, always a numerical preponderance in spite of a general inferiority in numbers.

A matter difficult to learn and understand is the schooling and training of cavalry. A mere painstaking, pedantic acquisition of all the movements and evolutions prescribed in the training regulations by no means will produce an

efficient cavalry. Thus one may rear experienced routinists and capable drill masters, but no great cavalry leaders endowed with the divine gift of instilling the spirit of the service into each and every rider. Cavalrymen that rode as well as Seydlitz have existed at all times; yet never again has there been a leader like him.

The Prussian cavalry of 1806 paraded as well and as precisely, and was just as brave, as that of Frederick the Great; and yet it was defeated. By slavishly imitating the old forms and methods that had been proved so successful in the Silesian wars, the cavalry had lost the old spirit of the Great King and of Seydlitz. Not only the arm itself, but the higher commanders of the entire army as well, had lost sight of the true nature and merits of cavalry.

During the period following the Napoleonic wars, up to and including the campaign of 1866, we find the same condition. Was it the cavalry's own fault that it played so insignificant a rôle in the campaign of 1866, or must the reasons for it be sought somewhere else? For fear lest the corps and armies might be deprived of the cavalry's support in battle, the latter was solicitously held in reserve behind the infantry, so as to make sure of its closest co-operation with the sister-arm in combat. This was the reason that the "Reserve Cavalry Corps" trailed along in rear of the army at a walk, and that only five of its 12 regiments were able to participate in the Battle of Königgrätz, on July 3. The name of "Reserve Cavalry Corps" alone suffices to show, with what conceptions regarding the employment of cavalry the arm itself, as well as the higher commanders, had taken the field in this campaign. Immediately after the war, Field Marshal v. Moltke directed the preparation of a critical study dealing with the operations and employment of cavalry. This document contains the following finding: "The reasons for the small share which the Prussian cavalry had in the victories of the campaign, must not be attributed to the material, but first and foremost to the manner of troop leading, and partly also to the organization and assignment. Competent leaders will also in future achieve with cavalry whatever may be expected of that arm. Missions which cavalry cannot accomplish, however, must not be demanded of it."

These last two sentences hit the nail on the head. The proficiency of no other arm is so greatly dependent on discretion in employment and the capability of its leaders as the cavalry. If the command of an infantry division, which nearly always is supported on the march as well as in battle, deserves to be called a science, then the leading of a large body of army cavalry, which operates independently and without support, must be termed an art. Cavalry, therefore, will accomplish only those things which the faculty of its commanders is able to achieve.

However, that argument does not yet settle the question. We must give to the cavalry such problems to solve as will conform to its characteristics. With this in view, the commanders of other arms, who in time of war are apt to have cavalry forces under their control, must be

schooled beforehand in the proper use of this arm. That Frederick the Great was thoroughly convinced of this necessity is proved by his instruction to the infantry generals: "To my sorrow and chagrin, I have frequently observed that our infantry generals concern themselves very little with the cavalry service. Consequently, when these generals are placed in command of cavalry, they are prone to ask of it the impracticable, whereas quite often they fail to use it for the purpose for which it is intended. This has caused me to present here clearly my conception of cavalry, so that these generals may learn the principles and nature of this arm, as well as know in future how cavalry should be employed." Frederick does not require the generals to know the details of the cavalry service, but he demands of them, as well as of those officers "who aspire to master the art of war in its fullest meaning," to be thoroughly conversant with the nature of this arm and the principles governing its employment.

The final and most important prerequisite to the success of the mounted arm, therefore, continues to be this: the High Command in war must entrust the cavalry commanders with missions that will permit of the fullest exploitation of the inherent characteristics and powers of this arm. This preliminary condition did not always obtain, particularly not during the World War. In the Franco-Prussian War, one may find promising beginnings of a modern employment of cavalry; yet even these were limited by the inadequate armament of that arm. The cavalry, not being equipped with firearms, had to call upon the infantry for support whenever serious resistance was encountered; obviously, this state of affairs detracted greatly from its achievements.

The employment of cavalry by any of the belligerents during the first year of the World War may be regarded as little successful. Errors committed during the first phase of a concentration can be corrected only with difficulty; because it is impossible to compensate for delays on the part of the commanders by an acceleration of the movements involved.

Impelled by the desire to have cavalry on all the fronts, one had not enough of it at the critical point. A tendency toward an unhappy dispersion of the cavalry had taken root. In view of the fact that both contending forces would effect their concentrations along the frontiers, early contact with the enemy had to be expected. It was for this reason that the armies lacked the necessary maneuvering space for a proper employment of the army cavalry. Moreover, frequent, and (as a rule) unfortunate, changes were made in assigning cavalry divisions and corps to the various armies. Very soon after the operations had begun, the armies of the German center no longer had any great need of their cavalry corps. In appreciation of this fact, the German Crown Prince early in September offered to place his cavalry corps at the disposal of the High Command, recommending that this force be put on the extreme right of the Army, inasmuch as the opportunities for its employment in the terrain before Verdun were slight.

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The situation within the operations zone of the Sixth Army in Lorraine was similar. Unfortunately, the High Command failed to recognize the justification of the Crown Prince's viewpoint in the premises and did not accept the offer. The consequence was that there was stationed on the Ourcq, at the very moment when Lieutenant Colonel Hentsch transmitted to the First Army the withdrawal order, one solitary weak cavalry division. Yet so much has already been written about this matter that any further comment would be superfluous.

Gradually, the opinion is gaining ground in military literature that a great success would have been obtained, if, in August, 1914, from three to four cavalry corps had been combined and placed at the disposal of the High Command, with a view to their employment first in rear of, then in prolongation of, and finally in front of, the German right wing. Nor would such action have resulted in any serious injury to the other armies, after they had been stripped of their army cavalry.

The objection that it would have been impossible to supply such a large body of mounted troops, is not sufficiently convincing to warrant vindication. The problem of storing sufficient forage in the concentration area, to last for the period of concentration, was taken care of in the peace-time preparations. Moreover, the service trains would have been able to supply the cavalry for a few days, while the latter was following and passing the First Army. From then on, foraging would have been in order, since the cavalry would have operated over a wide, rich area. Unfortunately, this feature, which so favors the employment of cavalry, is not sufficiently appreciated in all quarters. Neither Garnier's cavalry corps in the Battle of Vilna nor Schmettow's cavalry corps in Rumania had any cat-trains to rely upon. As soon as these corps began to operate in front and on the flank of the infantry, they would live off the country. If Frederick the Great and Napoleon I were able to maintain and supply large bodies of mounted troops, modern means of transportation will render this all the more practicable, if suitable measures are taken.

Mechanized units are far more dependent upon a regular supply of fuel than army cavalry depends on forage for its horses. The horse may exist for a while on but little feed and yet perform his duties; but the motor will not run without gasoline and oil. It would be an interesting study to fight the Battle of Brzesiny on the map, under the assumption that strong elements of the XXV Reserve Corps, of the 3d Guard Infantry Division, as well as of the 6th and 9th Cavalry Divisions had been motorized. It may be doubted whether the outcome of the battle would have been just as successful.

Only twice during the World War was cavalry employed on a large scale. In September and October, 1915, during the Battle of Vilna, Garnier's cavalry corps pushed forward and gained the rear of the Russian forces. To establish why this cavalry corps failed to achieve a decisive success is not, however, within the provinces of this book.

On the other hand, a blow that decided an entire campaign was struck in September, 1918, by the British Desert Mounted Corps, comprising four cavalry divisions, in Palestine. The intervention of this cavalry decided the issue in that quarter, in that it brought about the destruction of three armies.

In November, 1916, outstanding success also accompanied in Rumania the operations of Schmettow's cavalry corps, which was composed of two cavalry divisions. Without the early arrival of this corps at the bridge east of Carracal, Falkenhayn's operations might very easily have come to a standstill along this river. What under such circumstances would have been the fate of Kosch's army which had crossed the Danube at Sistow, remains an open question. Noteworthy among operations of recent years is the performance of a Polish cavalry division in April, 1920. At the beginning of the campaign, this division fought its way through the Russian concentration and seized Koziatyn, the seat of a Russian army headquarters, located approximately 100 miles in rear of the Russian front. But also on the Russian side a massed employment of cavalry, under Budienny, proved successful during the same campaign. Lastly, mention should be made of the Turkish cavalry. The victory gained by the Turks in their late war of liberation against the Greeks in Asia Minor must, to a large extent, be attributed to the Turkish cavalry, which in its victorious advance pushed on to Smyrna,—to the very coast of the Mediterranean.

If then, as has been stated before, success of the cavalry is after all predicated upon the proper employment of this arm on the part of the High Command, it goes without saying that as a prerequisite for such use cavalry, in time of peace, must be suitably organized and trained for its missions in war; otherwise, it will be a dull weapon. Only by devoting our foremost and best endeavors to the mounted arm before war has been declared shall we be in a position to exact from it the most outstanding performances. Frederick the Great, of course, enjoyed complete independence in this respect, in that he did not have to ask any higher authority to make appropriations for the support of his military forces. Consequently, so far as his finances permitted, Frederick was free to make any improvement or change that he felt the army needed. The great care which the King bestowed upon his cavalry is demonstrated by the fact that, while he would set aside 60 per centum of the national revenues for the support of the army, he allotted 18 per centum of that income to the cavalry alone.

The commander charged with the responsibility for a present-day army, however, is in a less fortunate position. Though never failing to strive for the ideal, he must nevertheless learn to content himself with that state of perfection which the limited means and forces at his disposal will permit him to reach, and to regard this as his highest accomplishment.

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The Provisional Cavalry Corps

BY MAJOR WILFRID M. BLUNT, CAVALRY
Chief of Staff, Provisional Cavalry Corps

THE Recent Command Post Exercise in New Jersey was the first large exercise of this kind held by the United States Army. The assumption was that a hostile force had effected landings along the Jersey shore and was pushing one army toward Philadelphia and another toward Princeton. General Headquarters, the Headquarters of the 1st and 2nd Armies and their subordinate units, down to include divisions, were established in the field. The troops, which in a command post exercise are imaginary, were assumed to have been brought in to the exercise as rapidly as they could be mobilized.

To oppose the advance of the hostile forces, the Blue (American) forces were sent to the front as fast as they could be mobilized, under the protection of the most available troops, the Blue First Army on the south and the Second Army on the north. Intervals between units on both sides were necessarily very great, and full use was made of all Cavalry available, both to obtain information and to prevent the enemy from obtaining it. At noon, September 2nd, the Blue High Command had 5 regiments of Cavalry scattered along the front, covering gaps and seeking detailed information of the enemy. In addition, a Cavalry Corps, commanded by Brigadier General Guy V. Henry, consisting of the 21st and 22nd Cavalry Divisions of the National Guard and the 7th Cavalry Brigade (Mechanized), was concentrated just east of Philadelphia and attached to the Second Army.

This exercise was designed as a test of our mobilization plans to see just what can be accomplished with the forces available. Units were sent to the theater of operations at their existing strengths in accordance with the mobilization plans of the several Corps Areas involved, inactive units not being forwarded until sufficient time had elapsed to bring them into existence. The 21st and 22nd Cavalry Divisions went to the theater of operations without any of the supporting arms or services, except one Quartermaster Squadron and one light Ordnance Company, which belonged to the 22d Division. All Cavalry organizations, however, were assumed to have the scout cars, radio, and .50 caliber machine guns now authorized by the War Department, but the supporting troops and services of the cavalry divisions did not join until the fifth of September. The 4th Cavalry (Mechanized), which was assumed to be fully equipped, was the only thing which could be described as having been "pulled out of the hat."

In addition to the headquarters of the Provisional Cavalry Corps, headquarters were actually operated by the 21st Cavalry Division, commanded by Brigadier General Nathaniel H. Egleston, the 22nd Cavalry Division, commanded by Brigadier General Dudley J. Hard, and the 7th Cavalry Brigade (Mechanized), commanded by

Colonel Bruce Palmer, Cavalry. Subordinate units were handled by Blue Umpires who received the orders addressed to subordinate units and conferred with the umpires playing the Black side to determine the information gained and the results accomplished.

The country in which the Provisional Cavalry Corps operated might well be described as one huge covert, extending from Pemberton to the sea, practically flat, and almost entirely covered with second growth pine. It was cut by numerous small streams, the undergrowth along which constituted far greater obstacles than the streams themselves. In addition to the main roads, there were many secondary roads which, however, on account of the sandy soil, were good in any weather. The outstanding characteristic of the country was the limited field of fire, seldom more than a hundred yards, except along a main road or railroad, and the complete absence of observation for Artillery.

In connection with the Cavalry several interesting problems were presented for solution. One was the team play evolved by the Commanding General of the Second Army between his heavy striking element and his light, mobile element, and another was the team play within the Cavalry Corps in the employment of the horsed and mechanized Cavalry. Blue G.H.Q. attached the Provisional Cavalry Corps to the Second Army with the understanding that it be employed to cut communications between the northern and southern Black armies. To take advantage of the time available the Army Commander in working out his scheme of maneuver decided to lead off with the Cavalry Corps and to support this move by making his main effort in the south. It is, however, with the operations of the Provisional Cavalry Corps that we are primarily concerned.

MOVEMENT INTO THE ASSEMBLY AREA

The night of 3-4 September the Cavalry Corps moved after dark from its concentration area, just east of Philadelphia, to assembly areas in the vicinity of Pemberton.

The 21st Cavalry Division to the area Buddtown—Marl—Magnolia.

The 22nd Cavalry Division to the area County Farm—New Lisbon—Magnolia.

The 7th Cavalry Brigade (less 4th Cavalry) moved to Pemberton prepared to advance to the east.

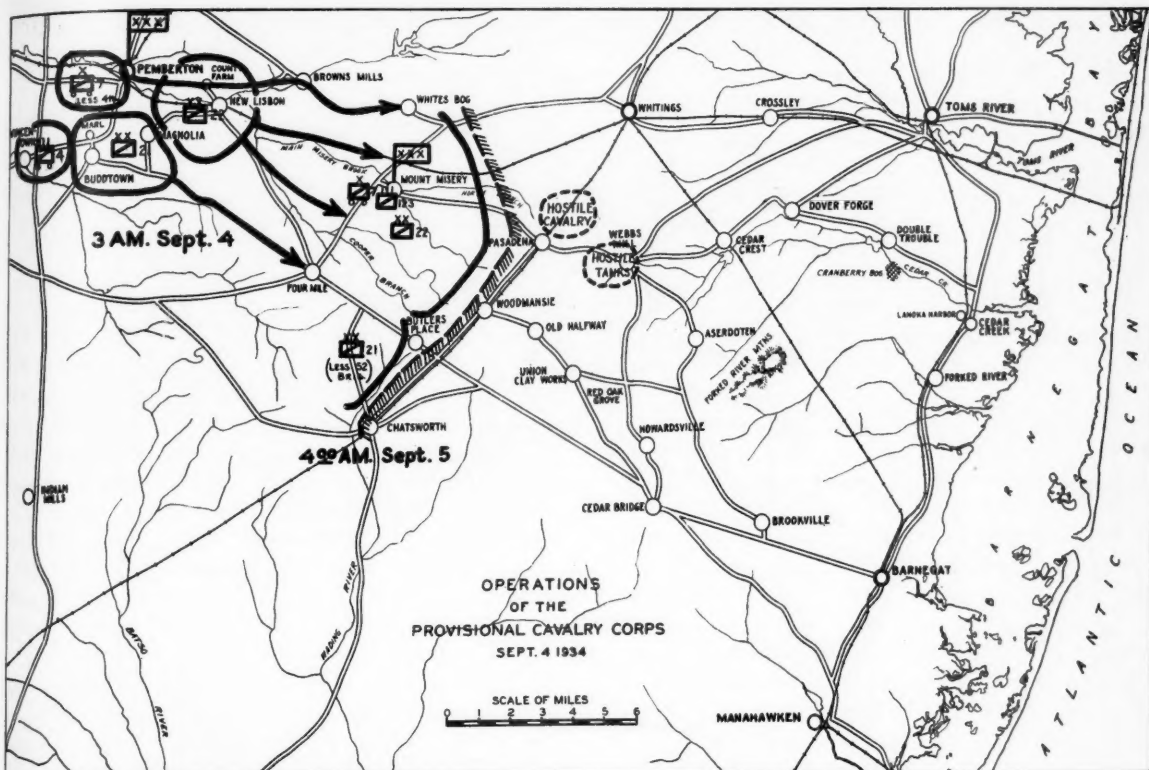
The 4th Cavalry following the 7th Cavalry Brigade, turning off to the area Buddtown—Vincentown.

With the exception of animals and vehicles essential to combat, all trains remained in the concentration area.

OPERATIONS OF SEPTEMBER 4TH

Orders for operations on the 4th directed:

The 21st Cavalry Division (less 52nd Brigade) to move



along the Buddtown—Four Mile—Cedar Bridge Road to engage enemy forces south of Cooper Branch and drive them to the southeast. Limit of advance: Stream line 1 mile north of Chatsworth.

The 22nd Division (less 123d Cavalry) to move along general axis New Lisbon—Mt. Misery—Woodmansie and to attack enemy forces south of Main Misery Brook—North Branch and north of Cooper Branch, driving them to the southeast. Limit of advance: Old Halfway.

The 7th Cavalry Brigade (less 4th Cavalry) with the 123rd Cavalry attached, to advance rapidly on Whitings via the Pemberton—Lakehurst Road and the P. R. R. (Trenton Division) right of way.

The 4th Cavalry to remain in the Buddtown—Vincen-town area in Corps Reserve, prepared to advance along the Four Mile—Cedar Bridge Road or in the direction of New Lisbon.

The 52nd Cavalry Brigade to remain in concealment in vicinity of Magnolia in Corps Reserve.

The 15th Observation Squadron to reconnoiter zone Pemberton—Toms River—Tuckerton—Indian Mills at dawn.

Reconnaissance detachments consisting of a troop of Cavalry and a platoon of scout cars were sent out at mid-night the 3-4 September on the following routes:

Pemberton—Browns Mill—Whiting.

New Lisbon—Mt. Misery—Old Halfway.

Buddtown—Four Mile—Cedar Bridge.

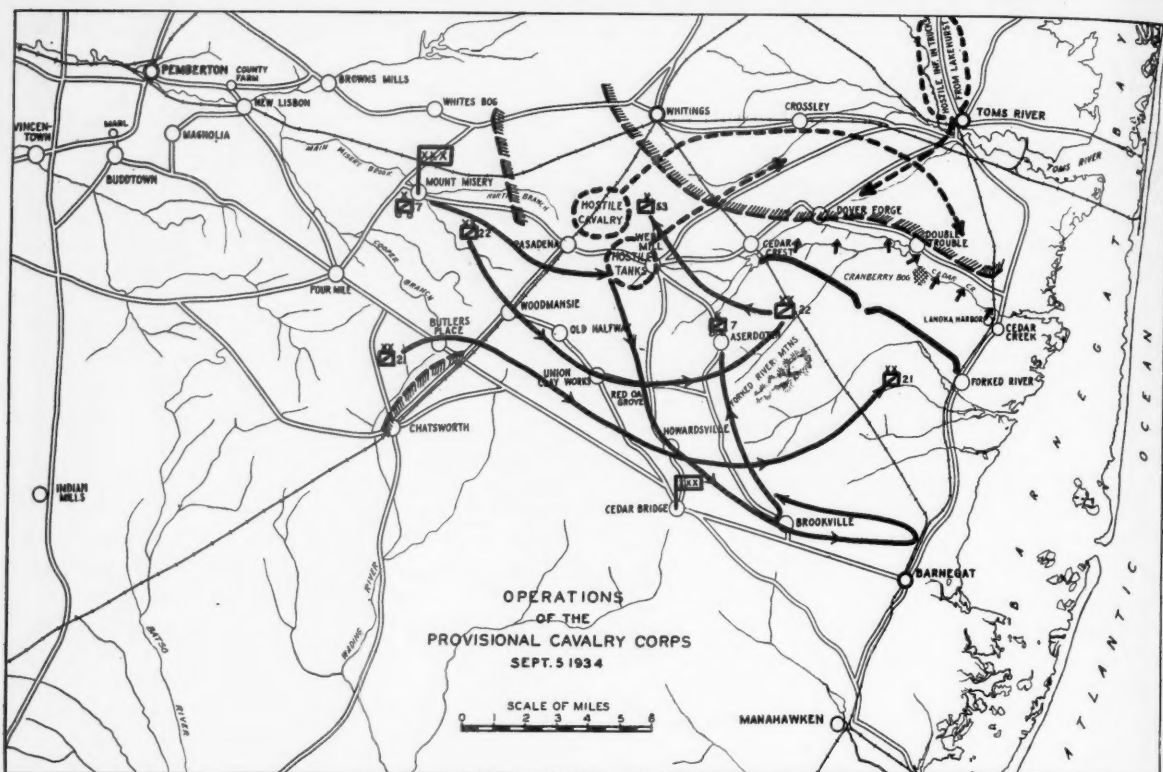
At the same time one troop of Cavalry was sent along the P. R. R. right of way towards Whitings.

Reconnaissance detachments were stopped on the general line Four Mile—Mt. Misery—Whites Bog at 2:00 a. m. A Chemical Company sent forward by Army, which arrived at Pemberton at 5:00 a. m., was immediately split up and sent forward to assist the reconnaissance detachments. By 9:15 a. m., leading elements had advanced toward the east, and the Corps Reserve was displaced forward, the 4th Cavalry to Mt. Misery, the 52nd Cavalry Brigade to Four Mile, and the Corps C.P. to Mt. Misery.

About 11:00 a. m. a hostile tank attack developed from the direction of Pasadena, which was met by the 7th Cavalry Brigade and resulted in a dog fight. The enemy tanks withdrew to Webbs Mills, and the 7th Cavalry Brigade was relieved by the 52nd Cavalry Brigade (less 103rd Cavalry) which was attached to the 22nd Division and extended their line to the north to Cranberry Bog. On the night of 4-5 September the Cavalry Corps held the line extending from 1 mile northwest of Chatsworth through Butlers Place to a point 2 miles west of Pasadena to Cranberry Bog. The 21st Cavalry Division was on the right and the 22nd Cavalry Division on the left with the 7th Cavalry Brigade and the 123rd Cavalry in Corps Reserve near Mt. Misery. Corps C.P., Mt. Misery.

5 SEPTEMBER

Information received early on the morning of the 5th indicated that the hostile Cavalry forces were being withdrawn along the front and concentrated in the vicinity of Pasadena, and that enemy tanks were near Webbs Mill.



Orders issued to the 21st and 22nd Cavalry Divisions and the 7th Cavalry Brigade, 4:00 A.M., 5 September, directed the Cavalry Divisions to drive forward, the right following generally the Four Mile—Barnegat Road, seize the general line of the Tuckerton Railroad south of Cedar Crest. Boundary between Divisions: Woodmansie—Union Clay Works—Forked River Mountains—Cranberry Bog south of Double Trouble, all to the 22nd Division. The 52nd Brigade, including the regiment in Corps Reserve, to revert immediately to the 21st Division, leaving only light covering forces in the area now occupied.

The 7th Cavalry Brigade to move to assembly positions to the east of Four Mile and follow the 53rd Brigade prepared to attack the tanks reported in the vicinity of Webbs Mill. The 22nd Division to drop off one regiment in Corps Reserve. The two armored car troops on arrival to go into Corps Reserve.

This attack was made at 8:40 A.M., immediately following a G.H.Q. air attack on the hostile tanks concentrated south of Webbs Mill. The hostile tanks withdrew toward Webbs Mill, and the 7th Cavalry Brigade toward Howardsville, where it was assembling at 10:00 A.M. Leaving light covering forces in their fronts, the Cavalry Divisions with the 22nd (less 53d Brig. in Corps Reserve) side-slipping to follow the 21st, advanced rapidly to the vicinity of Howardsville and Red Oak Grove where they turned to the northeast. The 7th Cavalry Brigade was directed to intercept communications in the vicinity of Barnegat and continue on the Corps ob-

jective. The 53d Cavalry Brigade Corps Reserve was moved to the location of the Corps C. P. at Butlers Place.

By 5:00 P.M. the Cavalry Divisions held the hostile intrenched position from Forked River to Cedar Crest with the 21st Division on the right and the 22nd Division (less 53d Brigade) on the left, and the Corps C.P. had moved to Cedar Bridge. The 7th Cavalry Brigade had cut communications north of Barnegat and captured 2,000 labor troops near that place.

Orders were issued for Cavalry Divisions to hold their positions for the night with strong outposts along the line Cedar Creek—Middle Branch. Boundary between Divisions: Double Trouble—Forked River Mountains—Howardsville. The 7th Cavalry Brigade was moved to Aserdoten to reorganize and refuel, and the 53d Cavalry Brigade in Corps Reserve was moved to Cross Roads 1½ miles northwest of Webbs Mills. Armored car troops protected the flanks from Brookville and Webbs Mills.

6TH SEPTEMBER

The enemy launched attack at daylight with main effort south from Dover Forge, and the horse elements withdrew slowly pivoting on the left flank preparing demolitions as they withdrew. The 4th Cavalry was moved to Webbs Mill prepared to strike to the north or east and energetic reconnaissance by armored cars pushed out on all roads, and the 53d Cavalry Brigade in Corps Reserve was moved to CR 2 miles south of Aserdoten.

The V Corps attacked at daylight, and by 8:15 A.M. the 37th Division on the left of the Cavalry Corps had

advanced east of Whittings; the hostile pressure on the right of the Cavalry Corps ceased about the same time. At 10:15 the 7th Cavalry Brigade launched its leading regiment in a counter-attack toward the northeast just south of Webbs Mill—Toms River Road, following immediately with the other regiment, this attack being closely supported by the 53rd Cavalry Brigade, moving via Webbs Mill at a gallop. At the same time the Cavalry Divisions counter-attacked and by noon had regained the line Cedar Crest—Forked River.

At 12:00 noon, 6 September, the Cavalry Corps held the line Crossley—Dover Forge—Lanoka Harbor and released the 53rd Brigade to the 22nd Cavalry Division. The 7th Cavalry Brigade was withdrawn to Corps Reserve to the vicinity of Dover Forge, the left flank of the Corps being protected by Troop "A," 121st Armored Car Squadron, from the vicinity of Whittings, and the Corps CP moved to Webbs Mill 12:30 P.M. These were the positions held at the termination of the exercise with the exception of the 7th Cavalry Brigade. This Brigade was relieved from the Cavalry Corps, 12:45 P.M., 6 September, and passed to command of VI Corps.

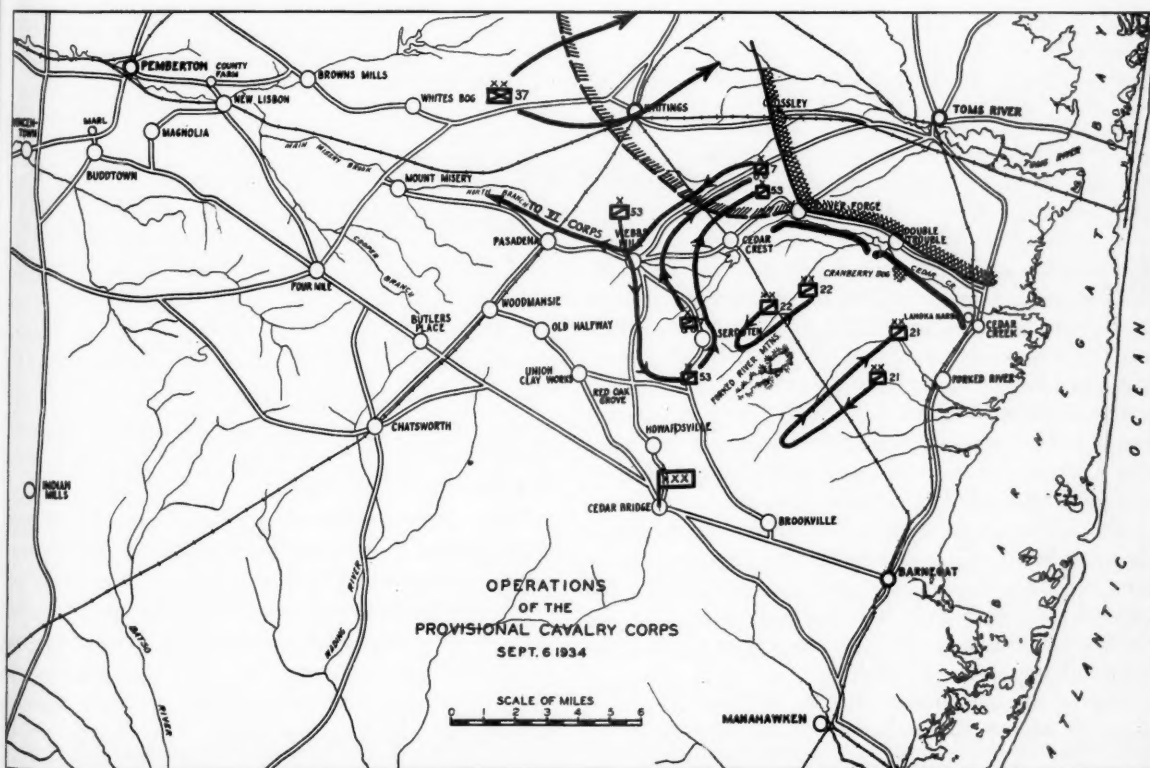
The old saying of "There being nothing new under the sun" may hold true as regards principles, but it was certainly disproved with respect to methods. The outstanding feature of the operations of the Cavalry Corps was its frequent departure from what is usually termed the normal method.

The first of these departures was in the movement from the concentration area into the assembly area. This

movement was made with troops "stripped for action." Canteen rolls were left at the train bivouac, and each man carried an extra bandoleer, two grain rations and two reserve rations. All Field and Service trains, except sufficient to serve one hot meal, remained in the concentration area; only the combat vehicles and the necessary pack animals carrying weapons, ammunition, radio and kitchen packs accompanied the troops. These arrangements, which were made possible by the motorized trains, gave the fighting units the greatest possible freedom of action. Replenishment of supplies was effected by elements of the field trains coming up to troop locations each night and returning via the railhead to the train bivouacs before daylight.

Next came the question of suitable formations for an advance through the thickly wooded area. From an actual reconnaissance of the terrain over which the Cavalry Corps would probably operate, it was apparent that this matter was of paramount importance on account of the limited fields of fire and the ease with which columns on the roads could be ambushed. To meet these conditions it was decided that each column should advance in an approach formation, deployed both in frontage and in depth close behind a broad covering force. This method of marching in lines of small columns worked admirably for the horsed units and was generally used throughout the operations.

As in any campaign, information was of prime importance. While the woods seriously limited vision horizontally, they restricted vertical vision only slightly. As



a result of the lack of terrestrial observation, the observation aviation attached to the Cavalry Corps had not only to observe movements of large bodies of troops in back areas, but also the movements of enemy troops in contact. The splendid service rendered by the attached observation aviation and the success of our troops in obtaining identifications compensated in a great measure for the lack of terrestrial observation.

While communications have always been important, they became more important with the introduction of aviation, and this importance is augmented with the increasing speed of movement of ground troops. In recognition of the necessity for rapid transmission of messages, the Second Army authorized the free use of radio within the Cavalry Corps. The radio was, of course, supplemented by the use of scout cars and motorcycles. By the use of maps divided into suitably designated quadrangles, somewhat similar to those used by the British in France, map locations of our own or enemy troops may be transmitted very rapidly and briefly in the clear, which will be meaningless to the enemy. An adaptation of this system combining symbols to indicate particular formations or operations was used in the 7th Cavalry Brigade (Mechanized).

Last but not least were the tactics employed, which were simple and effective. The Cavalry Corps advance was made on a broad front, seeking to drive any hostile troops encountered to the southeast away from their supporting troops. In order to take advantage of any opportunity to advance the left of the Corps, the 7th Cavalry Brigade (Mechanized) was placed on the left flank, where it could also make use of the railroad right of way.

However, the possibility of slipping through a hole was always in mind, and after the attack on the morning of

September 5th, when the 7th Cavalry Brigade broke through, the two Cavalry divisions, leaving light detachments in contact, side-slipped through the gap. This move so threatened Toms River that the hostile cavalry division which had been delaying the advance of the Cavalry Corps was rapidly withdrawn to the north and moved around to defend the line Dover Forge—Lanoka Harbor.

A large reserve was habitually held out, this was usually placed in rear of the most important part of the front, as the chronology of the operations shows. The mechanized troops were always in reserve at night, which arrangement minimized their weakness during the dark and provided an opportunity to gas and make minor repairs.

Another interesting point in connection with the mechanized units was that, while in the Cavalry Corps, they never committed to action, unless closely supported by horsed troops. On the other hand their mobility was never curtailed by being tied to horsed troops, and when opportunities arose advantage was taken of their mobility to shove them in advance of horsed troops, as when the 4th Cavalry cut the enemy communications near Barnegat. In the initial advance on September 4th, a regiment of horsed cavalry was attached to the 7th Cavalry Brigade and in the counter-attack on the morning of September 6th, a horsed brigade was moved at a gallop to support the mechanized units. By the prompt occupation of the ground taken the .50 Caliber Machine Guns were able to hold the ground and cover the withdrawal of the 7th Cavalry Brigade after it had struck the hostile tanks north of Cedar Crest.

The rapid advance of the Provisional Cavalry Corps under opposition in a difficult country convinced all concerned of the value of such a powerful mobile force.

Cavalry in 1918

(*Moderne Kavallerie, Generalleutnant G. Brandt*)

FOR reasons that need not be entered into here, the Germans during the last years of the war transformed their cavalry divisions into rifle divisions. As a matter of fact, there was no German Army cavalry at all on the Western Front in 1918. That the decision to strip completely the West of all army cavalry was not a happy solution of the problem is proved by the events of that year. The German forces were then unable to exploit their achievements to the full, because there was no cavalry.

The Allies, on the other hand, made extensive use of their cavalry as a General Headquarters Reserve in stopping up and defending the gaps where our forces had effected a break-through. No less than three times did the French cavalry in 1918 save the armies of the Allies from suffering a complete defeat.

During the big March offensive in France, again in April at Mount Kemmel and, finally, in May of the

same year at the Chemin des Dames, it was the French army cavalry that closed the gap each time and so afforded its infantry and artillery an opportunity to reorganize their defense. The forced marches accomplished by the cavalry during these operations covered up to 125 miles. Thus the French cavalry did render its country an invaluable service, which fact has received due credit in the foreign military press.

But in order that the cavalry may be capable of such performances, it must be afforded the necessary rest during periods which offer no missions that are suited for purely mounted action. During this phase the cavalry will have to strengthen and further develop its marching capacity and fighting power, for great demands will be made upon both these qualities when it is a question of carrying out subsequent missions.

A French Cavalry Raid at the Marne

BY SEWELL T. TYNG

First Lieutenant, Military Intelligence Reserve

IN the early morning of the 5th of September, 1914, Maunoury's Sixth French Army, the Army of Paris, started its march along the north bank of the River Marne, proceeding eastward towards the Ourcq with Château Thierry as its ultimate objective. The movement constituted the initial step in Joffre's general plan for a great Allied counter-offensive to begin the following day as a supreme effort to roll back the mighty tide of invasion that in less than three weeks had swept, seemingly resistless, across Belgium and the richest provinces of northern France. An unexpected attack against Maunoury's Army, launched in the afternoon of the 5th by the German 4th Reserve Corps that von Klück had left north of the Marne to cover his flank and guard his communications, forestalled the plans of the French Commander-in-Chief, and the Battle of the Marne was joined eighteen hours before its appointed time.

For two days and a half, Maunoury and von Klück battled indecisively, but without respite, at the very gates of the French capital, and as night fell on the 7th of September, the issue still hung in the balance. On a line running for fifteen miles north of the Marne, along the west bank of the Ourcq and roughly parallel to it, the two armies held a front that had temporarily become stabilized, the French facing east and the Germans west. The struggle had resolved itself into an effort by each side to turn its adversary's northern flank. Each side had received successive reinforcements, but while Maunoury knew that he had all but reached the limit of his resources, his aviation had told him that powerful columns, in fact the 3rd and 9th German Army Corps, were on the march northwards to join von Klück. To the French Army Commander, the moment seemed at hand, therefore, when, if ever, he must force a decision before his adversary could be strengthened.

Such was the general situation in that part of the battlefield of the Marne known as the Battle of the Ourcq, when the French Cavalry Corps arrived to take its place on the northern flank of the Army of Paris. Its three divisions, the 1st, 3rd and 5th Cavalry Divisions, had become greatly depleted in numbers by losses, and men and horses had reached the point of exhaustion as a result of long and often fruitless marches under the hot summer sun, punctuated by frequent engagements with the enemy.¹ Nevertheless, Maunoury relied upon it heavily for the success of his plan to outflank his opponent from the north, and assigned it an ambitious mission.

"The Cavalry Corps, extending its movement still

farther to the north," read the Army Commander's General Order No. 52, issued at 6:50 P.M., September 7th, "will operate in the region of La Ferté Milon, always seeking to fall on the enemy's rear."

The instructions thus given envisaged Cavalry activity behind the right wing of the German First Army, but to General Sordet, the Cavalry Corps Commander, his command seemed hardly in condition to fulfill his superior's expectations without a night of rest, and this he determined to give it. As the fighting died down with the coming of darkness, he ordered his divisions to break contact with the enemy and led them back to Nanteuil-le-Haudouin, six miles to the south.

It was an unfortunate decision, for it left the northern flank of the French Sixth Army wholly unprotected, and Maunoury learned of it late in the evening with consternation. Soon after midnight, he sent Sordet a peremptory order.

"The Cavalry Corps commanded by General Sordet will mount its horses immediately upon receipt of this order, will recover all the ground lost and will seek by every means to carry out the general mission assigned to it by General Order No. 52. The situation is such that all considerations relative to the conservation of effectives must yield before the necessity of winning the battle this very day, at the price of any sacrifice."²

In shame-faced obedience, the Cavalry Corps, whose withdrawal had luckily escaped the enemy's observation, retraced its course scarcely two hours after its arrival at Nanteuil-le-Haudouin. Instead of the night of rest that Sordet had planned, the weary troopers and their mounts executed a march of twelve miles through the darkness. In the morning, a more emphatic evidence of the Army Commander's displeasure arrived in the form of an order³ that relieved Sordet of his command and replaced him at the head of the Cavalry Corps by General Bridoux, commander of the 5th Cavalry Division.

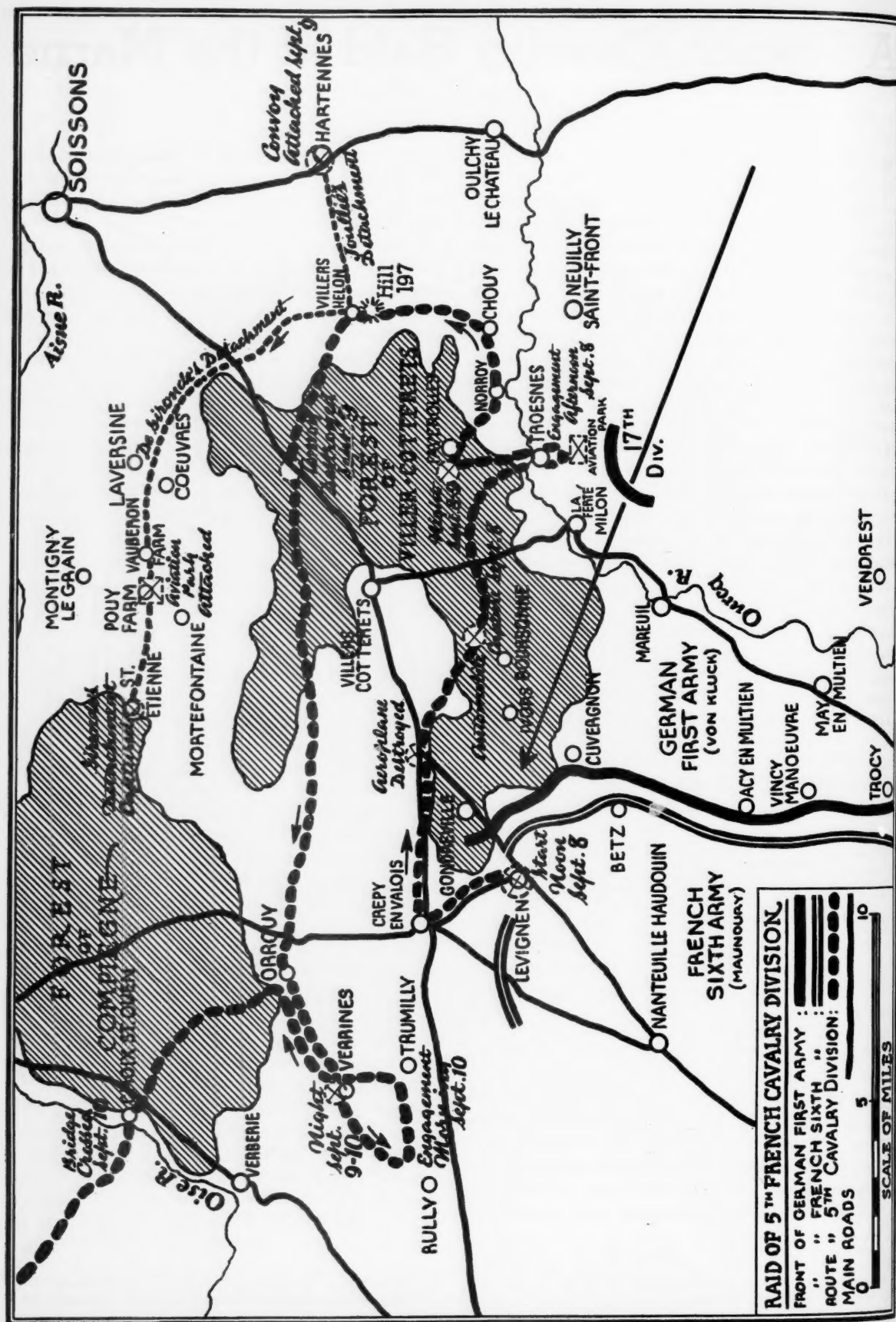
Determined to lift the cloud that temporarily rested on the reputation of his Corps, Bridoux forthwith summoned General de Cornulier-Lucinière who had taken over the command of the 5th Cavalry Division.

"No matter how tired your men and horses may be; no matter what difficulties you may encounter," Bridoux told de Cornulier, "You must reach the rear of the enemy that is defending the line of the Ourcq in the vicinity of La Ferté Milon. You must cross to the east bank of the river this very day at any cost. Von Klück must hear your guns behind him. Do all the damage you can. The choice of routes and the most effective course of action

¹Since it entered Belgium on August 6th, two days after the outbreak of hostilities, the Cavalry Corps had covered approximately 750 miles, an average of 25 miles a day for 30 days, with little or no opportunity for rest.

²Special Order No. 53, issued at 12:45 A.M., September 8th.

³Order issued without number at 9:45 A.M., September 8th.



lie wholly within your discretion; but you must get through."

Thus, with only oral instructions, couched in the most general terms, the raid of the French 5th Cavalry Division behind the lines of von Klück's Army was organized. In less than two hours, the Division made ready to start on its perilous task.

The force led by de Cornulier amounted to approximately 2000 officers and men, with 10 guns and 6 machine-guns. The losses suffered during the preceding weeks and detachments necessarily assigned to other duty reduced its strength to less than half that of a normal French Cavalry Division.⁴ Three Brigades comprised its mounted strength, a total of 18 squadrons averaging 80 sabres apiece, with a Machine-Gun section of 2 guns for each Brigade: the 5th Light Brigade (5th and 15th Chasseurs), the 3rd Dragoon Brigade (22nd Dragoons and 2 squadrons of the 16th Dragoons), and the 7th Dragoon Brigade (29th Dragoons). The artillery complement consisted of the 10th and 12th Batteries of the 61st Horse Artillery and one section of the 11th Battery, a total of 10 75-mm. guns, accompanied by 13 light caissons and a Combat Train of 7 heavy caissons and an ambulance. As infantry support, the Division received the aid of a reinforced Cyclist Detachment of 357 officers and men.

The nature of the mission precluded the inclusion of any wagons or supplies beyond the barest necessities of the moment, a day's emergency rations for the men and one day's fodder for the horses. The Division had no motor transport of any kind, and neither radio, telegraph nor other means of communication. Once across the enemy's lines, it remained perforce cut off and reduced to its own resources.

The choice of routes constituted a perplexing problem for the Division Commander, for it was essential to the accomplishment of the main purpose that the movement should not be revealed to the enemy until the Ourcq could be reached and crossed. For three days, von Klück's lines had constantly extended farther to the north and northeast, and new forces were reported approaching from the northwest as well; but a narrow corridor still remained free directly to the north, and of this de Cornulier determined to take advantage. Shortly after noon on the 8th of September, the 5th Cavalry Division started from its position some 1500 yards north of Levignen. Proceeding along the main highway, it arrived as far as Crépy-en-Valois without incident to find the town unoccupied. With the initial plunge thus safely taken the Division turned its course sharply to the east, taking as its objective the bridges across the Ourcq at Troesnes, 15 miles away.

Through the protecting shades of the Forest of Retz, the march proceeded unobserved and unopposed. At the

edge of the woods, the advance guard came suddenly upon a German aeroplane that had just landed in an adjacent field. Surprised and startled at the sudden apparition of enemy cavalry, the pilot and the observer set fire to their machine and made their escape into the thickets. A few miles further on, north of Boursonne, the leading squadron ran headlong into two motor-cars with machine-guns mounted on them, which it quickly halted and seized, capturing their astonished occupants almost before they realized what had happened to them.

Shortly after five o'clock, with less than two hours of daylight left, the Division emerged from the forest in sight of the Ourcq at Troesnes. An aeroplane coming down on to the plateau south of the town on the opposite bank of the river indicated the presence of an aviation park, that de Cornulier immediately resolved to attack. Scaling the steep slopes that gave access to the plateau, the leading regiment, the 15th Chasseurs, found before it barbed wire entanglements defended by infantry armed with machine-guns. Unequipped to deal with so formidable an obstacle, the French cavalrymen halted its assault until the artillery, laboriously dragged on to the heights farther to the north, could take the enemy under its fire. With the main body of the Division and all of its guns established on the plateau, however, de Cornulier found himself committed to a pitched battle, not, as he had expected, against a detachment defending the aviation park, but against German infantry advancing in force, strongly supported by artillery. As luck would have it, the 17th Division of the German 9th Army Corps, hastening to reinforce the right wing of von Klück's Army, had arrived in the vicinity of Troesnes almost simultaneously with the French Cavalry Division and just in the nick of time to save the Army's main aviation park from capture or destruction. Realizing that he had to deal with forces greatly superior to his own, de Cornulier determined to hold his ground until dark and then to make his escape. Fortunately for the French Cavalry, the German Division that was hurrying towards the principal battle-ground refused to be diverted from its primary mission and detached only forces strong enough to hold this unforeseen enemy in check, so that after a sharp engagement that cost the French heavily in killed and wounded, de Cornulier's Division was able to draw off unpursued under cover of the night, to re-cross the Ourcq and to reach the edge of the forest near the village of Faverolles, where it bivouacked for the night.

In general, the day had been a satisfactory one, for the French Cavalry had succeeded in getting around its adversary's flank, inflicting some damage by the way, and in creating a serious disturbance in the area that the Army Commander had designated. Although, as a result of the engagement near Troesnes, the presence of de Cornulier's force had become known to von Klück, the very knowledge could not fail to exercise a disquieting influence upon the plans of the German high command.

The opportune intervention of the German 17th Di-

⁴In the campaign of 1914, a French Cavalry Division aggregated 4500 of all ranks and 8 guns, including 3 Brigades of 2 Cavalry regiments each (4 squadrons—32 officers and 651 other ranks), 2 4-gun batteries (8 75-mm. guns), a Cyclist Detachment (4 officers and 320 other ranks), a Signal Detachment and auxiliaries.

vision at Troesnes had prevented de Cornulier from making a capture more important than he realized, for a major prize had been almost within his grasp. Late in the afternoon, General von Klück had determined to transfer his Headquarters from Vendrest to La Ferté Milon in order to be in closer contact with the right wing of his Army, and his arrival in the vicinity coincided with that of de Cornulier's Cavalry. The German Army Commander has described the incident in his memoirs.

"At dusk an audacious detachment of French Cavalry had attacked an aeroplane station south of La Ferté Milon just as the line of cars of Army Headquarters was approaching the scene of action. All the members of the staff seized rifles, carbines and revolvers, so as to ward off a possible advance of the French cavalrymen, and extended out and lay down, forming a long firing line. The dusky red and clouded evening sky shed a weird light on this quaint little fighting force. The thunder of the artillery of the 9th and 4th Corps⁵ boomed and roared defiantly, and the gigantic flashes of the heavy guns lit up the deep shadows of the approaching night. In the meantime, the French squadrons had been apparently shot down, dispersed or captured by troops of the 9th or other Corps. These bold horsemen had missed a goodly prize!"

The night of September 8th to 9th brought little rest to the men of de Cornulier's force. The necessity of maintaining a constant guard of utmost vigilance, the impossibility of lighting fires that might betray their position and a heavy rain that had soaked the woods all contributed to their discomfort. Throughout the night, details led the tired horses, a few at a time, to water in the neighboring village of Faverolles and took advantage of the occasion to procure, from the few inhabitants who had not fled, such provisions as they could, to eke out the slim fare of cold emergency rations. At four in the morning, in the gray of the dawn, the Division was again on the move towards Norroy, southeast of its night encampment.

On the heights east of the town, de Cornulier established his batteries, and for nearly two hours directed their fire at every sign of enemy activity, wagons and isolated groups moving along the roads, and at last against an enemy detachment of all arms advancing from La Ferté Milon towards Norroy. Though the detachment fell back before the French shell-fire, it nevertheless constituted a warning that the Division Commander could not prudently ignore, for it was no part of his mission to fight a general engagement, and the countryside from La Ferté Milon to Neuilly-Saint Front was now thoroughly aroused. Enough stones had been thrown into the anthill, and de Cornulier turned his course northwards. On the way scouts brought word of a German communications center at the village of Chouy. A swift raid by two squadrons of the 22nd Dragoons brought in 15 German officers of assorted services of the rear, and the French continued on their way.

⁵Along the main battle-front to the west.

At Villers-Helon, five miles north of Norroy, de Cornulier halted again to take his bearings from Hill 197, south of the village, that dominates the surrounding region. From the crest of the hill, the Division Commander could see two main highways, one from Soissons to Oulchy le Château and Château Thierry, to the east, and another from Soissons to Villers Cotterets and Paris, to the west. Along each of them heavy convoys, closely guarded, could be seen moving towards the south, carrying supplies and munitions to von Klück. Determined to intercept, and if possible, destroy both convoys, de Cornulier divided his command. Two squadrons of the 22nd Dragoons, under Commandant Joulle, with a Machine-gun Section of two guns, he sent eastward to attack the convoy on the Oulchy road, while he himself turned west with the main body of the Division against the other and larger convoy. At the same time, he despatched another squadron of the 16th Dragoons, commanded by Lieutenant de Gironde, towards the north to reconnoiter in the region of Soissons, which seemed to be the center of the German First Army's service of supply.

Near Hartennes⁶ Joulle's detachment struck the German convoy on the road to Oulchy, throwing it momentarily into disorder; but the French machine-guns had opened their fire at too long a range to do great damage, and the convoy was protected by a strong and vigilant guard, that immediately deployed and came forward aggressively. In the engagement that ensued, both Joulle himself and the captain commanding the other squadron of the detachment fell wounded into the enemy's hands, and the French retreated precipitately, leaving a number of dead and wounded on the field. Under the command of Lieutenant Dillon,⁷ the survivors made their way back to the French lines, without succeeding in rejoining the main body of the Division, after a painful odyssey through a country infested with enemies actively searching for them.

On the Paris road, the main body of the Division under de Cornulier's personal command met better fortune, taking the convoy that was its objective unaware, dispersing its escort and destroying fifteen trucks loaded with munitions, with a series of shattering explosions that rocked the Forest of Villers-Cotterets. A despatch from the German Commandant of supply at Soissons addressed the same afternoon to von Klück indicated that the activities of the French Cavalry had produced the desired effect.

"The presence of French Cavalry in the Forest of Villers-Cotterets prevents the transport of munitions and food to La Ferté Milon and Neuilly-Saint Front."

It was becoming increasingly apparent to de Cornulier, however, that the raid was reaching the limit of its usefulness, for the rear of the German First Army had become alert at every point. Patrols of German Cavalry were

⁶Near Hartennes, a monument, commemorating the exploit of the 5th Cavalry Division and in memory of its dead, marks the most easterly point of the Division's advance.

⁷Later killed in action.

hanging on the flanks and rear of the French Division, remaining scrupulously out of range and avoiding contact, but keeping it under constant observation. Repeatedly infantry pickets greeted the French flank guards with shots. Convinced that it could be only a matter of time before he would be compelled to stand and fight against a force powerful enough to destroy or disperse his own command, de Cornulier resolved to rejoin the Cavalry Corps which he believed to be still in the vicinity of Nanteuil-le-Haudouin. Finding that Crépy-en-Valois, through which he had passed the previous day, was now strongly held by the enemy, de Cornulier passed to the north of it, continuing west through Orrouy, to the plateau of Verrines, where the Division arrived without serious contact with the enemy shortly before midnight and bivouacked for the rest of the night.

In the meanwhile, the third group of the Division, de Gironde's squadron,⁸ pursued its reconnaissance in the direction of Soissons as ordered by the Division Commander; but German cavalry patrols, cautious but persistent, dogged its tracks and watched its every move, and the French cavalymen could accomplish little. It was almost midnight when, after fording a stream between Coeuvres and Laversine and shaking off his pursuers in the darkness, de Gironde led his command to the lonely farm of Vauberon. While the men were unsaddling their horses and making ready for a few hours of hard-earned rest, de Gironde and his officers talked with an elderly farm-hand. The information that he gave necessitated a rapid change in plans. In the afternoon a German aviation park had established itself at the neighboring Pouy Farm, less than a mile away. A scouting party hastily sent out to investigate confirmed the news; the park was there, shrouded in darkness and apparently slackly guarded. Heedless of fatigue, de Gironde assembled his squadron and set out, for it was an opportunity too promising to neglect.

Divided into three parties, two of them on foot and one mounted, the French approached the sleeping camp. Through the obscurity they could see a line of parked automobiles, gasoline trucks, scarcely fifty yards away, when a guttural voice broke the stillness.

"Wer da?" It was a casual, unsuspecting challenge from a sentry who never suspected that the party approaching him was other than some belated patrol. It would have been an easy matter to have fallen upon him and overpowered him before he could give the alarm; but de Gironde's men were young, eager and still unversed in the ways of war. A revolver shot rang out with terrible distinctness through the silent night, and the sentry crashed to the ground, screaming hoarsely as he fell. In an instant all was turmoil. With their hope of complete surprise frustrated, the French troopers methodically poured volley after volley in the camp, trusting to luck that their bullets would reach targets. Fully alert, the Germans returned the fire. A shot entered the tank of

one of the parked trucks which burst into a column of flame as the French charged furiously, brandishing their lances,⁹ and by the light of the blazing gasoline the two sides met in furious hand to hand combat. It was an unequal struggle, for the French were hopelessly outnumbered and had lost their initial advantage. De Gironde fell, mortally wounded, and another officer was killed at his side. Twenty-two French and more than 30 Germans lay dead when at last the French squadron broke away. One officer, Lieutenant Kerillis, desperately wounded, took refuge with two men in the near-by village of Montigny-Le Grain, where he found shelter with friendly inhabitants and eventually reached safety. The survivors of the squadron, two officers and some thirty men, made their way to a farm-house in the vicinity of Saint Etienne. There, the next day they were surrounded and captured after a gallant but futile resistance.

The day of September 10th marked the close of the raid of the French 5th Cavalry Division. At dawn de Cornulier's force started southward in another effort to reach Nanteuil-le-Haudouin, but at Rully and Trumilly, it found the way blocked and guarded. A series of sharp combats in which the Germans brought infantry and artillery into action and inflicted severe losses¹⁰ on the French, convinced de Cornulier that his only hope of escape led to the west and that he had no time to lose. In fact, though the French Cavalry Commander was not aware of it, the main body of von Klück's Army was already in full retreat towards the north, and the position of the little force directly in its path was becoming hourly more perilous. To gain greater mobility, de Cornulier authorized the destruction of the 7 heavy caissons of his Combat Train and formed a separate detachment of the dismounted cavalymen whose horses had been killed or had fallen by the way. To this force of nearly 400 men, he attached the Cyclist Detachment, placing the whole under the command of Lieutenant-Colonel de Tavernost, commanding officer of the 16th Dragoons. Leaving the dismounted detachment to follow, de Cornulier pushed forward with the main body of his Division, reduced to less than 1000 men, towards the Oise. The woods through which the Division rode were swarming with enemies, and two squadrons of the 15th Chasseurs, guarding the Division's left flank made prisoners of one officer and 70 German infantrymen during the march, but no organized opposition appeared and de Cornulier found that luck was with him.

At Croix-Saint Ouen, the bridge across the Oise was intact, and better still unguarded, for the detachment detailed as its guard had marched away before its relieving detachment arrived. With the principal obstacle crossed, de Cornulier could breathe easier, but his dangers were not over, for his men remained continually in contact with enemy patrols. By another stroke of good fortune, an

⁸In 1914, the French Cavalry were not equipped with bayonets.

⁹The 3rd Squadron of the 16th Dragoons, 5 officers and 54 other ranks.

¹⁰The 10th Battery of the 61st Artillery lost 24 men, 35 horses, 1 gun and 4 caissons.

officer reconnoitering ahead of the column in one of the motor-cars captured the day before met and captured a German despatch-rider, speeding on his motor-cycle with a message from the German Commandant at Compiègne to the Commandant at Clermont, warning the latter of the approach of French Cavalry and urging him to intercept it. Needless to say the message remained undelivered. From Compiègne a dozen automobiles, filled with infantrymen, started in pursuit of the French Cavalry; but this attempt likewise failed. Three troopers had fallen behind the column. All had dismounted, and two of them were standing guard while their companion made some hasty repairs to his equipment, when the leading motor-car, with two officers riding in it, suddenly appeared around a bend in the road. The two troopers instantly fired, but though they missed their mark, the driver swerved his car, overturning it in the ditch while the two officers scrambled off into the woods. The cars following behind, hearing the shots and seeing the first car turn over, thought they had run into an ambushade and turning quickly around disappeared in the direction from which they had come.

The two attempts of the Commandant of Compiègne to attack the French Cavalry Division from the front and from the rear thus came to naught, and at nightfall de Cornulier reached Fournival and relative safety. The Battle of the Marne had come to an end and von Klück was in full retreat. In the following days the dismounted detachment and the survivors of Joullie's two squadrons rejoined the command.

The raid executed by de Cornulier-Lucinière's Division from September 8th to 10th 1914 was the only operation of its kind on the western front during the course of the war. In all, the Division lost nearly 40% of its effective

strength and more than half of its horses.¹¹ Whether the results that it obtained justified this price is at least conjectural, for though it succeeded in spreading confusion in the rear and communications of the German First Army, its activities did not compel von Klück to divert any substantial force from the principal battle or to make any material alteration in his plans. It seems hardly justifiable to compare, as some French writers have done, the expedition conducted by de Cornulier with the raids of Stuart and Morgan in the Civil War, for both in scope and results it fell far short of the exploits of the great Cavalry leaders of the Confederacy. Nevertheless, in the annals of a war in which Cavalry as an independent arm played of necessity a relatively minor rôle, it becomes an episode of more than ordinary interest to the military historian, and though lacking any great strategical significance, it must be set down, at the least, as a very gallant feat of arms.

SOURCES

Les Armées Françaises dans la Grande Guerre (French Official History), Tome I, Vol. 3.

J. Hethay (Gen. de Cornulier-Lucinière)—Le rôle de la cavalerie française à l'aile gauche de la première bataille de la Marne.

Pelecier, Gen.—Un raid de cavalerie.

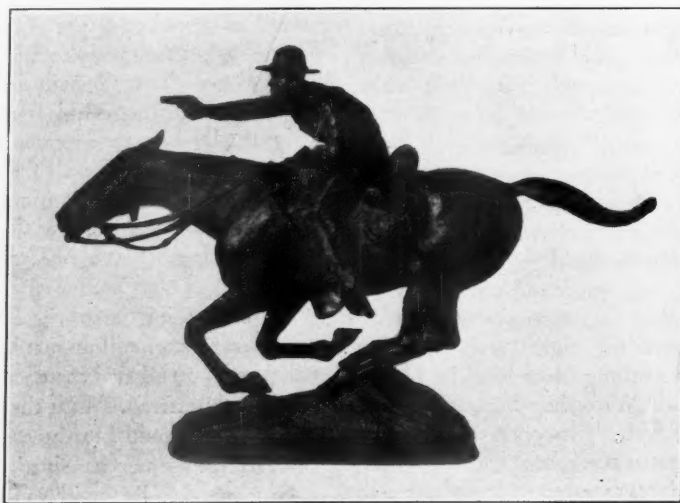
Gazin, Capt.—La cavalerie française dans la guerre mondiale.

Koeltz, Lieut.-Col.—L'Armée von Klück à la Bataille de la Marne.

Von Klück, Gen.—Der Marsch auf Paris und die Marneschlacht 1914.

Von Kuhl, Gen.—Die Marnefeldzug 1914.

¹¹Exact figures are not available, for many initially reported missing avoided capture during the German retreat and ultimately rejoined their units.



The Goodrich Trophy

Second Cavalry Experiments With Light Machine Guns

BY MAJOR C. C. BENSON, 2D CAVALRY

IN November, 1931, the Chief of Cavalry designated the 2d Cavalry as a project regiment to conduct a series of tests and experiments with scout cars, caliber .50 machine guns, motor trucks, and light machine guns. Throughout 1932, 1933 and the first five months of this year, the 2d Cavalry devoted much time and effort to these activities, which culminated in the maneuvers in which the Cavalry School Troops and the First Cavalry (Mechanized) participated at and near Fort Riley, last Spring. Some results of these tests and experiments, in so far as they pertain to the light machine gun, are presented herewith.

Before getting into this discussion, it is necessary to consider both the weapon and its mount. The light machine gun was designed for use in a tank, and the tripod that came with it was intended for emergency use on the ground when a tank became disabled. The faults of this emergency tripod have been eliminated in the new mount which is now being issued. While various pilot models of the new mount were available to the 2d Cavalry, most of our experiments were necessarily conducted with the emergency tripod inherited from the Tank Corps. We constantly had to assume that if the gun had a stable mount it would do certain things that were out of the question in the absence of efficient elevating and traversing devices. As now mounted, this gun is an accurate and dependable weapon.

Whether to consider the light machine gun primarily as a supporting or an accompanying weapon was a much debated question. As a supporting weapon, it would naturally form a unit in the troop, squadron, or regiment. Heavy caliber .30 guns of the machine gun troop now provide the regiment with more organic fire support than has ever before been available. The addition of another supporting unit in either regiment or squadron would tend to complicate rather than simplify the tactical handling of these units. It was therefore decided to experiment with the light machine guns organized as a separate platoon in each rifle troop.

This combination proved to have disadvantages similar to those of the former machine rifle platoon, which was all too frequently misused or forgotten in a fast moving action. Troop and platoon commanders were repeatedly obliged to attach a light machine gun to a rifle squad for the performance of some particular task; in other words, *to improvise a combat team just before it went into action*. Naturally, the necessary team work between rifles and machine guns could not be fully developed under such conditions. Riflemen and machine gunners are quite different; they must work together habitually to

develop effective coöperation. If heavy machine guns are attached to a troop or squadron, it is usually undesirable to have the light machine guns assembled for additional supporting fire, because they can be more usefully employed in rifle platoons or squads. It appeared preferable to assign the light machine guns to platoons or squads, from which part or all of them could readily be withdrawn and assembled temporarily to provide concentrated fire support whenever necessary. Coöperation between light machine gun crews thus temporarily assembled, if practised occasionally, can promptly be secured because they are all alike.

All who participated in the experiments were agreed on the desirability of having a light machine gun in each rifle squad for dismounted action; but there was much difference of opinion as to the effect of such assignment on the mounted action of small units. It was feared that the presence of the light machine gun in each rifle squad would predispose squad and platoon leaders to dismounted actions in which, when opposed by aggressive horsemen, these units "would be lost or accomplish nothing;" that we would lose the mental and physical mobility that should characterize cavalry; and that we would soon become merely a mounted machine gun corps. From a series of exercises which were conducted to test the validity of these views, two in which the writer participated may throw some light on these debatable questions.

COMBINED ACTION

In one of these exercises a troop made a combined attack, with one platoon mounted and another dismounted. Each platoon had three squads with a light machine gun in each squad. While the dismounted platoon engaged the enemy with its rifle and light machine gun fire, the mounted platoon maneuvered under cover some 500 yards to the flank, formed as foragers and executed a pistol charge. Upon reaching the objective, after galloping about 1000 yards, the mounted platoon was in excellent order, its light machine guns about seventy-five yards in rear of the line of foragers. All gunners and assistant gunners were in the line of foragers; hence the three pack horse drivers were the only members of the platoon who did not participate in the pistol charge. Had it been necessary to hold the ground gained, against mounted or dismounted counter-attacks, the presence of three light machine guns would have given the maneuvering platoon considerable staying power. At the conclusion of the exercise, these guns were in position to provide an intense fire to facilitate rapid movement by the remainder of their own platoon or by other elements.

DISTANT AND COMBAT AREA RECONNAISSANCE

The other exercise was designated to test the usefulness of the light machine gun as part of a rifle squad on distant or closer in reconnaissance. Four patrols, varying in strength from six to eleven men including the light machine gun crew, were sent over the same ground at different times on identical reconnaissance missions. The squad leaders were instructed to dispose the members of their patrols in whatever way they thought best to meet changing terrain conditions. The terrain included sand flats, canyons and rolling uplands. Officers and sergeants, not members of the patrols, observed their conduct at various points along the designated route and later compared notes. The patrol leaders acting independently on their own initiative, all adopted formations that differed materially from those heretofore taught. Each kept his light machine gun near him on the axis of movement and sent scouts much farther to the front and flanks than has been customary with such small patrols. These scouts could have given the patrol leader warning of an approaching enemy in time for him to assemble most of his patrol for mounted action, to get the gun into action, or to seek cover if so doing appeared desirable. Had it been necessary for the patrol to swim a river, the presence of the light machine gun pack might have caused some delay; and in rugged or heavily wooded country, the pack horse would probably have decreased the rate of progress. All of the officers and the majority of the non-commissioned officers who observed or participated in this exercise expressed their approval of having a light machine gun in each rifle squad even for reconnaissance duty. It was the consensus of opinion that a reconnaissance patrol would accomplish its mission more often when provided with a light machine gun than it would without one, especially if forced to fight in order to get the desired information or to return with it.

In the two exercises cited above, the situations were such as to make it difficult for light machine guns to justify their presence in the rifle squads. Whether they did so or not is a matter of opinion which can be verified only by experience in campaign. It may be of interest to consider briefly certain operations in which it appears clearly desirable to have a light machine gun in each squad.

Battle Reconnaissance.—Patrols assigned to battle reconnaissance duties are frequently in close contact with hostile patrols or larger bodies. They must operate by force as well as by stealth in order to remain in their assigned areas and to secure information. It is believed that a squad with a light machine gun will have a distinct advantage over a hostile squad which has none. **Counter-reconnaissance.**—The most advanced squads, with light machine guns, can offer more effective resistance at defiles and cover more frontage in open country than can the present rifle squad. In a stationary screen, fire power is more important than mobility; and even in a moving screen, the potential mobility of horse cavalry will rarely

be used to the limit. In either type of counterreconnaissance, the commander can hold out larger supports and reserves, with a consequent saving of men and horses, because the advanced elements are strengthened with light machine guns. **Security.**—For less mobile units and for horse cavalry in general, either on the march or in bivouac, it has been customary to attach heavy machine guns to all kinds of security detachments. If each rifle squad has its own light machine gun, the heavy caliber .30's can safely be held in support or reserve under more centralized control. **Exploiting a Breakthrough and Pursuit.**—Mobility is of supreme importance in reaching the objective; immediate readiness to deliver intense fire, upon arrival thereat, is equally important. The action of a single squad, especially in the covering detachments, may make or break the success of the entire force. Each rifle squad should therefore have its own light machine gun for use in these touch-and-out operations. **Delaying Action and Covering a Withdrawal.**—Time gained by the liberal use of machine gun fire is the key to success in these operations. With a light machine gun in each rifle squad, the integrity of tactical units can be more readily preserved, and their action more readily coordinated, than in a force to which machine guns are attached. Small, well-organized combat teams can effectively replace cumbersome improvised detachments, and thus enable the commander to enlarge the area or duration of his resistance. **Dismounted Action in General.**—Battle experience has repeatedly demonstrated the vital importance of the squad as a combat team in dismounted action under modern conditions of warfare. The squad has not yet been so recognized in the organization and equipment of horse cavalry regiments. If we can, without undue sacrifice of mobility for mounted action, organize and equip our rifle squads so that they are equal or superior to infantry squads in fire power, we shall have achieved a notable advance.

COÖPERATION BETWEEN HORSE AND MECHANIZED CAVALRY

Mechanized cavalry should always seek to exploit its high potential mobility to effect surprise and to secure an advantage in the selection of terrain for decisive combat. If the enemy is prevented from delaying its advance to the combat area, mechanized cavalry will often be able to accomplish these purposes and to initiate combat at maximum efficiency. It is therefore important for horse cavalry to remove road obstructions, repair bridges, secure and defend defiles, and overcome hostile groups placed to delay progress on routes selected for the advance of mechanized units. Horse cavalry detachments should hold critical points on these routes as long as is necessary to insure rapid passage for the combat, service and supply echelons of the mechanized elements. Mechanized cavalry will normally remain as long as possible at some well-equipped base, in order to perfect the mechanical condition of its vehicles, while the horse cavalry coöperat-

ing with it is throwing out covering detachments several days' march in advance. The horse cavalry will necessarily employ numerous small detachments, each of which should be capable of determined resistance and also have considerable offensive power. A light machine gun in each rifle squad best meets these conditions.

The restricted scope of this discussion precludes consideration of other phases of coöperation between horse and mechanized cavalry, or of operations in which horse cavalry alone is in combat with hostile mechanization. Study of these subjects and such experience as we have been able to gather from our field exercises, and from maneuvers in which the 1st Cavalry (Mechanized) participated, have gradually converted members of the 2d

Cavalry to acceptance of the Cavalry School idea that, for practically all tactical purposes, the best disposition of the light machine gun is to make it an integral part of the rifle squad. So doing will give to squad leaders more powerful means of action than they have heretofore had and will require that more attention be given to their selection and development. They are the men on whom we must rely to get results in battle. It would appear desirable to give them permanently, as part of their own commands, the men and weapons that they will need in a fight. If they are alert, active and aggressive leaders, we may be assured that mounted action will retain its proper place in cavalry tactics.

Efficiency—Tactical or Technical?

The Light Machine Gun in Cavalry Organization

BY MAJOR JOSEPH L. PHILIPS, CAVALRY

THE primary interest of all cavalrymen is held in the correct answer to this single question: *How can we best promote the battle efficiency of our arm?*

Even among our cavalry leaders who are recognized throughout the Army as possessors of experience, of talent, and of vision, there are many proposed answers to this question with which we are all deeply concerned. The majority of these answers deal with one general idea, which might appropriately be stated as follows:

"In this particular military period, what should be our Cavalry organization?"

A sound organization is one based on probable tactical employment of the unit concerned. Tactics, in turn, necessarily are based upon characteristics of the means, weapons, or matériel with which the unit is equipped. Organization, tactics, and characteristics are forever and inseparably linked.

Any proposed organization of a combatant unit, once tentatively arrived at, must then at once be subjected to these tests:

(1) Is this organization suited to the requirements of the high command?

(2) Is it suited to the leaders of the small component elements, (i.e., the squad, the platoon, the troop), that fight the battle?

(3) Is it suited to combat effectively the enemy we are likely to meet?

The writer believes that the foregoing statements will meet with no disagreement. The following expression of personal opinion may, or may not, be disputed:

Cavalry must be able to FIGHT—to attack, and to defend, as well as to harass and to delay.

We desire no light cavalry, specially organized and equipped solely for reconnaissance; no heavy cavalry whose single justification for existence is efficiency in

mounted combat; no mounted riflemen whose training fits them only for dismounted combat. In short, we want no specialized types of horse cavalry.

The army *does* need a versatile cavalry; cavalry that can deal effectively with any type of enemy, from savages to mechanized forces, on any form of terrain, in any kind of weather, in any class of military operations.

Appropriate missions that might be given by the high command to cavalry are listed in any good volume on cavalry tactics and need not be enumerated here. The majority of such missions may be classified into two groups, namely:

Covering (including reconnaissance), and
Participation in battle.

The traditional characteristics of cavalry were mobility and shock. The development of fire power has resulted in shock becoming a diminishing characteristic of cavalry; whereupon, cavalry assumed fire power as one of its own characteristics. Fire power and mobility being, in one sense, opposing characteristics, cavalry organization, in recent years, has been a compromise between these two opposing factors.

Mobility enthusiasts sometimes forget that movement alone, if not combined with fighting power, is useless.

Fire power enthusiasts have asserted that mounted attacks have become outmoded, and that cavalry will execute all of its important offensive operations by dismounted action.

The truth, as always, may be found between two extremes.

The cavalryman of the present certainly, and of the future as far as most of us are concerned, is, and will be, the "resolute man on a galloping horse."

There may be fewer important mounted attacks than in the days when the cavalry of Frederick, or of Napoleon, made decisive charges. However, as long as there is

cavalry, there will be mounted maneuver, in which all the traditional characteristics of cavalry mobility will be employed; and there certainly will be numberless sharp encounters between small opposing mounted groups.

What would constitute the ideal mobile force? This, surely, would be the description: the force with the maximum of mobility, the maximum of power, and the minimum of vulnerability. In present-day practice, we must compromise between the mobility and the power, realizing that we must possess a sufficiency of each, and as best we may we approximate invulnerability by employing our mobility (speed under enemy fire), our own fire power (supporting and covering our movements under fire), adopting suitable formations, and by utilizing the ground in maneuver and in combat.

Has the automatic weapon—specifically the machine gun—made the horse useless on the battlefield? No cavalryman will admit it.

Rather, this engine of mass destruction has now become one of the chief reasons for the continued existence of horse cavalry.

The "maneuverability of fire power" is here proposed as the chief and distinguishing characteristic of cavalry—horse and mechanized.

With infantry, horse cavalry shares another important characteristic: the capability of independent action.

The cavalry machine gun represents massed fire and economy of force, mobility, and surprise. It may not comport with the jingling, costly, brilliant cavalry units of traditional European battlefields and parade grounds, but it sustains the traditions established by the cavalry of Forrest and Sheridan. It makes the cavalry, suitably equipped with it, a formidable opponent to any enemy. Does the inclusion of machine guns in a cavalry force make the latter merely mounted infantry? Certainly not; mounted infantry uses the horse merely for transportation; whereas a cavalryman is a good shot mounted on a disciplined horse, both horse and rider trained for mounted combat. And if the cavalryman, in addition, be trained to approximate a good infantryman in dismounted combat, he becomes an even more formidable opponent.

When should we fight mounted? A good cavalryman would always prefer mounted action within reason, but the decision, in a particular case, should not be influenced by sentiment. A professional soldier must be a good haggler—a shrewd bargainer. We may have something that the enemy wants, but which our mission requires us to hold; if the enemy has the necessary means and insists on obtaining it, we will make it as expensive for him to secure as possible. Conversely, if the enemy has something which we want, we will buy it at as cheap a cost as possible. When mounted action means a higher price, then the decision should be for dismounted action, certainly in all cases when other factors, as time, are not vital. "Buy cheap and sell dear," should be our rule for decision, and we must be prepared to take prompt and decisive advantage of any bargain presented, whether for

mounted or dismounted action.

Buying or selling, efficiently-handled machine guns will enable the cavalry leader to drive a hard bargain.

Granting the machine gun, where should it be in our horse cavalry organization?

During the late War, infantry heavy machine guns were in part organized as division and brigade weapons. Machine gun specialists argued for the creation of a Machine Gun Corps, as a separate branch, on the ground that the development of an expert machine gunner required such a degree of technical training that the average infantry unit could not afford the time and should not be charged with the responsibility. Battle experiences showed the tactical desirability of having the machine guns as integral elements of the infantry units that did the fighting and, as a result, we now find the heavy machine guns within the infantry battalions.

Shortly after the War, our cavalry heavy machine guns were organized as brigade machine gun squadrons. The advantages in the technical training of machine gunners of such a unit are obvious, but there was the tactical disadvantage that relatively many cavalry officers had not learned how to employ machine guns, and many rifle units of cavalry regiments did not know what to expect from their use. We now have the heavy machine gun as a regimental weapon, and there are few cavalry rifle troops and squadrons that have not operated with and against heavy machine guns in training and in maneuvers, and have, thus, become familiar with their powers and limitations.

We may assume that the cavalry heavy machine gun is now correctly placed in the regiment, analogous in combat strength to the infantry battalion, and that this is sound from the viewpoint of technical training, ammunition supply, and tactical employment.

What about our newer light machine gun? Should it be organized as a rifle squad, platoon, troop, or squadron weapon? Where should its characteristics and tactical employment entitle the light machine gun to be placed in our horse cavalry organization?

Its mobility in pack is equal to that of the mounted trooper.

It cannot replace the heavy machine gun because it is not capable of accurate, sustained, full automatic fire, and it is not so well adapted for overhead fire.

It is sufficiently mobile on the ground to accompany riflemen in the dismounted offensive.

Its tactical employment in cavalry dismounted action is comparable to that of the infantry automatic rifle in the infantry squad. The differences in respective characteristics are all in favor of the light machine gun, especially for cavalry employment. The automatic rifle is used in the infantry squad to give a greater volume of fire, but not to increase the effective range of the weapons of the squad; the light machine gun in horse cavalry not only produces a greater volume of fire, but it also enables placing a more accurate fire on targets beyond the effective range of

the rifle. This is a quality of the light machine gun that is particularly valuable to horse cavalry, because cavalry small arms are so often employed on fire missions at greater distances and ranges than would be normal for infantry. The characteristics of the light machine gun enable its fire to fill the gap existing between the heavy machine gun and the effective fire of the rifle. If we accept the idea that many cavalry targets will be rapidly moving ones, and frequently just beyond effective rifle range, that is another point in favor of the light machine gun.

THE TACTICAL EMPLOYMENT OF THE LIGHT MACHINE GUN DEMANDS THAT IT BE PLACED WITHIN THE RIFLE SQUAD.

Bold as the foregoing assertion may at first appear, it is believed that its soundness will be established by consideration of the following reasons:

(1) As tactical developments of modern small arms have progressed, and the effective range and the volume of fire have increased, the combat fire unit has changed. Particularly is this true of horse cavalry, where many missions now require such extension in space that the platoon leader can no longer effectively control the fire of his widely separated squads. The cavalry rifle squad is becoming the fire unit.

(2) Centralized control is becoming increasingly difficult in these times of night movements, the use of smoke and chemicals, and all types of mechanization. Our organization must be a flexible one of mobile groups, and EVEN SMALL GROUPS MUST BE SELF-RELIANT.

(3) When dismounted, the cavalry rifle squad should be approximately on a parity with the infantry squad, thus enabling the former to take part in the main battle without inferiority in fire effect.

(4) The inclusion of the light machine gun in the rifle squad will result in making all cavalry rifle units homogenous, which is not the case now. At present, the rifle troop has two (or more) rifle platoons and a light machine gun platoon. Rifle platoons and light machine gun platoons are differently organized. It is desirable to have each squad similar to other squads and each platoon similar to other platoons within the troop.

(5) The present organization is not sufficiently flexible. At times in battle, ammunition supply for the light machine gun may demand a number of carriers; at other times, none may be needed. If within the squad, as many riflemen as necessary would be available as carriers, the remainder being available for the firing line. Furthermore, the present light machine gun crew is not trained for duties in reconnaissance, patrolling, and liaison, in the execution of which all troopers should be proficient.

(6) The inclusion of the light machine gun within the rifle squad permits the gun to function regardless of casualties normally expected. In combat the gun will be kept in action by the squad, not by the initial gunner who may become an early casualty. The present light

machine gun crew is but three men, one of whom is the horseholder for four horses; this results in permitting but one casualty in a gun crew without need of replacement, which failing in battle will mean that either the horses are lost or the gun is out of action.

(7) The light machine gun is now employed in battle within the rifle squad, which it joins, usually, just prior to combat. Such an attachment is not sound. The corporal of the rifle squad should eat, sleep, and train with his light machine gunners if the squad team is to function in battle at maximum efficiency.

(8) In most cavalry actions, the light machine gun is the most important element of the rifle squad; it fights the battle of the squad and in dismounted combat is the nucleus of the squad. It should be a permanent part of the squad, and every man in the squad should be trained in its use; the squad will still be an effective combat unit if but the leader, three other men, and the gun remain.

(9) More pistols will be available for mounted attack, with the light machine gun within the rifle squad. At present, the light machine gun crews are not trained for mounted attack, and the employment of the light machine gun platoon for mounted combat is not anticipated. This results in reducing the strength of the rifle troop in mounted attack by about one-fourth. With light machine gun crews within the rifle squads, each squad will have two additional men, not encumbered with a led horse, who may employ the pistol. The gun in no way lessens the mobility of the squad.

(10) The light machine guns may be taken from the squads and grouped for firing in battery when deemed desirable. Training for such group firing might occasionally be given and is much simpler and easier than battle training in the team work of the dismounted squad.

The foregoing arguments for organizing the light machine guns within the rifle squads of horse cavalry do not present the case completely. The question presents itself:

What will be done with the guns if they are to be employed in a mounted attack?

The guns in pack, of course, have no power. If fire support for the mounted attack is essential, and conditions permit providing it, the guns may be dropped off for the purpose, under a suitable commander who will coordinate their actions, with or without an escort for local security, as seems appropriate.

There will be at least as many occasions when the light machine guns *should go through* with the attacking mounted force, as there will be occasions when circumstances indicate that the guns should be dropped off. The terrain, visibility, time and space factors, and other considerations may be such that frequently the light machine guns cannot efficiently or safely be employed to give effective supporting fire to the mounted attack, especially when the enemy is mounted. Furthermore, unless it is definitely established in advance that the enemy will not counter-attack, all light machine guns

(Concluded on page 80)

Wade Hampton

BY MAJOR JOSEPH MILLS HANSON, F. A. RESERVE

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NOT in any uncouth sense, for he was one of the most cultured of men, but in the fabric of his spirit, Wade Hampton belonged to the Middle Ages. He was no less a good American because he might have been in his element if he had lived in a medieval monarchy; and had he done so he would assuredly have been to his king either a great vassal or a great rebel.

The stuff of Charles Martel and of Warwick was in Wade Hampton. A fortune more ample than most fortunes of his generation became his by inheritance, as did the social prestige and the power and influence which belonged to a great landed proprietor of the South in the days of slavery. But he did not permit such advantages to sap his energies and make him a drone. Rather he utilized them to render himself even more truly the head of a dynasty than his father and his grandfather, able men though they were, had been before him.

Frankly accepting the obligations of his high position, he spent his time freely in the public service, both before and after the Civil War, and as governor of South Carolina and United States senator from that state, proved a true guide and champion of his people in their years of bitterest stress. At the same time, in his earlier manhood, he bent himself so successfully to the business of agriculture and live stock breeding that he became the outstanding planter of the South, and in the year preceding the outbreak of the war his plantations in Louisiana and Mississippi produced 5,000 bales of cotton, worth, even at the prices then current, a quarter of a million dollars. He maintained luxurious homes at "Millwood," South Carolina, "Cashier's Valley," in the mountains of North Carolina, and on his plantations in the Southwest, and in all of them delighted to entertain many of the distinguished men of his day, after the example set him by his father. He was so redoubtable a horseman, hunter, and fisherman as to become renowned for these accomplishments throughout the South. Yet, after having made himself an adept in fields so many and varied, in the middle span of his long life he found it necessary to become a soldier, and in so doing created for himself, in the brief space of four years, a record as one of the shrewdest, most dauntless and resourceful generals in a war which produced more than its due proportion of brilliant military leaders.

Born in Charleston, S. C., March 28, 1818, Wade Hampton, the third of that name in direct lineal descent, was the eldest son of Wade Hampton, the second, and Ann (FitzSimons) Hampton. He spent his childhood and youth at "Millwood," and at "Cashier's Valley," where he learned to hunt and to ride in the most approved Hampton manner, and was educated at the Columbia Academy and the South Carolina College, graduating

from the latter institution in 1836. Two years later he married Margaret, a sister of William C. Preston, and after her death in 1851, married Mary Singleton McDuffie, only child of George McDuffie, the statesman and governor of South Carolina.

In 1861 Hampton was forty-three years of age and at the very peak of his intellectual and physical vigor. In spite of being himself the owner of many slaves he regarded slavery with such disfavor as to excite the resentment of many of his friends, and though holding secession to be legal he believed it unwarranted and unwise at the time. Nevertheless, when South Carolina passed an ordinance of secession he placed himself and his fortune unreservedly at the service of his state. One of his first acts was to offer to the Confederate government his accumulated supply of cotton, which was worth at the time about \$1,200,000, to be shipped to Europe and exchanged for arms. As so frequently happened, the Southern authorities failed to grasp their opportunity, and when New Orleans fell this cotton was burned lest it fall into the hands of the Federals; a staggering loss which Hampton, however, bore with the equanimity which he always showed in the face of misfortunes.

At about the same time, probably owing to a sense of modesty arising from his lack of a military education, he enlisted in the army as a private. But it was obvious that the martial instincts inherited from his grandfather and his father, who had given luster to the name Wade Hampton in the Revolution and the war of 1812, guided by some actual experience in warfare, would soon fit him for greater responsibilities. In May, 1861, having been commissioned a colonel, he set about recruiting the Hampton Legion, paying most of the expenses of organization himself. Many of these peculiar bodies, each one consisting of six companies of infantry, four of cavalry, and one battery of field artillery, were created in the South in the early days of the war, but proving ill-adapted to the requirements of actual service were eventually broken up and their different arms reconstituted, except in name, or else merged in other organizations.

Hampton commanded his legion creditably at the first battle of Bull Run, where he was wounded, and where his six hundred infantry held the Warrenton turnpike on the Robinson house hill, at Jackson's right flank, for four hours, until almost surrounded by superior forces of the enemy. In the nine months intervening between Bull Run and the next serious operations, he learned the lessons of command rapidly, and did such good service in the early phases of the Peninsula campaign that he was appointed a brigadier general on May 23, 1862. A few weeks later, at Seven Pines, a bullet again laid him low, but when he was able to return to duty it was as com-

mander of the 1st Brigade of cavalry. This had been organized immediately after the close of the Peninsula campaign, and was composed of the mounted troops of his own old legion, and those of the Jeff. Davis Legion, the Cobb Legion, the Phillips Legion, and two normal cavalry regiments.

The new brigadier was now in his proper element, and as the senior officer, eventually designated as second in command, of the cavalry under Stuart, he went through the second Bull Run and Maryland campaigns with success and rapidly increasing renown. His work was particularly notable in September, 1862, east of South Mountain and at Crampton's Gap, in holding back the Federal advance until Jackson could capture Harper's Ferry, and Lee could provide for the concentration of the Army of Northern Virginia at Sharpsburg. With a considerable number of his troops among the picked detachments which made up Stuart's column on its raid into Pennsylvania in October, 1862, Hampton served as second in command of that hazardous expedition, and later participated in most of the hot cavalry combats of November which marked the movement of the hostile armies to the Rappahannock.

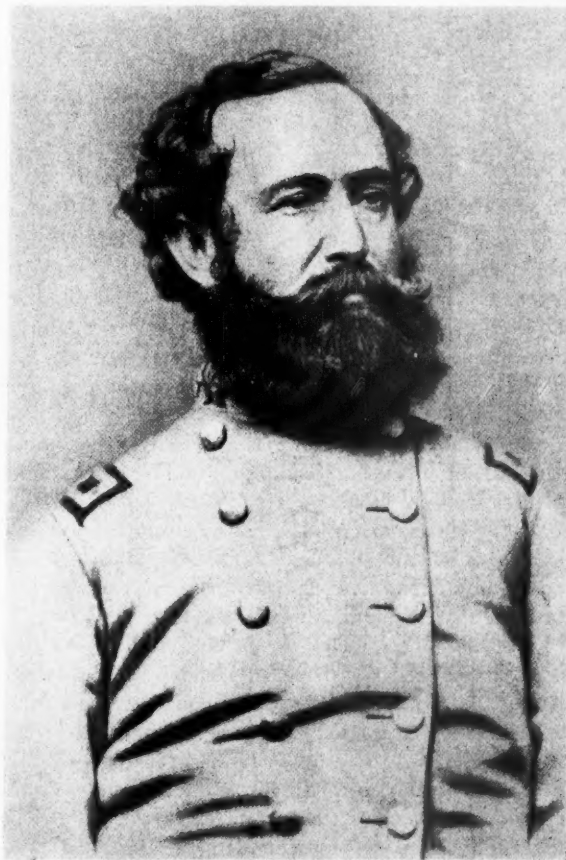
Although with his own brigade he made some short, brilliant raids toward Dumfries and the Occoquan in November, and during the Fredericksburg campaign guarded the crossings of the lower Rappahannock, at some distance from the rest of the army, it was principally as a subordinate, directly under Stuart's command, that Hampton had thus far served. In that capacity he continued to serve until the spring of 1864. It was the best of schooling for an officer who was to become, more and more as time went on, a leader of operations on his own account. But in the meanwhile his wide and expert knowledge of the care and management of horses, and his experience in handling men, proved of the greatest utility in building and maintaining his command as a formidable fighting organization, while his success in these particulars favorably influenced the other units of the cavalry with which his own was associated.

But already, in the winter of 1862-3, the wastage of war was beginning to call for vigorous measures to sustain the supply of horses and men of the Confederate cavalry at the established standard. In the middle of February, 1863, Hampton's brigade was ordered to the southern counties of Virginia to recruit and, what was still more important, to collect horses for use in the campaign of the coming spring and summer. The brigade did not return to the army until the last of May, thus missing the fierce cavalry battle of Kelly's Ford, on March 17, and the campaign of Chancellorsville. But it arrived in ample time to participate in the greatest cavalry battle of the year—indeed, of the war—at Brandy Station, on June 9, where Hampton and his men bore, to say the least, their full share of the fighting of Stuart's five brigades.

Stationed in what was virtually a support position at

the beginning of this swift, confused, and widely extended conflict, Hampton managed, during its course, either under orders or by his own initiative, to take an important part in nearly every phase of the struggle. When the attacking column of the Federal right, under General Buford, crossed the Rappahannock at Beverly Ford at dawn, Hampton's brigade was camped around Brandy Station, nearly three miles in rear of Jones' brigade, which received the shock of the attack immediately south of the ford.

Leaving one regiment to watch the road leading north from Stevensburg to Brandy, Hampton, under orders from Stuart, hurried to Jones' assistance. He deployed four regiments in the woods southeast of St. James' Church, on Jones' right, and then advanced a heavy dismounted skirmish line, supported by the rest of his brigade, thus creating a threat to Buford's open left flank which brought the Federal advance to a halt by 9:30 a. m. Even the aggressive extension of Buford's left failed to disturb Hampton's men, who were holding their own when Hampton received the astounding intelligence that a great mass of Federal cavalry was attacking Fleetwood Hill, the key-point of the Confederate position, directly in rear of his own and Jones' brigades.



Photographic History of the Civil War, Review of Reviews Company

Lieutenant General Wade Hampton, C.S.A.

The attacking force was Gregg's Third Cavalry Division, which had crossed the Rappahannock at Kelly's Ford, six miles below Beverly's, moved west toward Stevensburg and then north by a road which led to Brandy and Fleetwood, in rear of the Confederate center. Hampton had to make a quick and momentous decision. It was a question whether to remain in position, holding back a large body of the enemy, or to leave a gap open, trusting to luck that the Federals would not pour through before it could be refilled, while he carried his brigade east of Fleetwood and struck the flank of the enemy's columns which were attacking the hill. Ascertaining that the bulk of the Stuart Horse Artillery was still in position near St. James' Church and maintaining a spirited fire, and that, although most of Jones' regiments had been dispatched by Stuart to meet the enemy at Fleetwood, their places were being taken by troops of W. H. F. Lee's brigade, marching down from the left, he determined on the aggressive course. Throwing his four regiments into column of squadrons he marched swiftly toward the slope of Fleetwood, approaching it just as Kilpatrick's brigade, of Gregg's division, in echelon of regiments, also drew near from the southeast with the intention of reinforcing and prolonging the right flank of the Federal forces on the hill. The hostile bodies charged each other, and in the collision Kilpatrick was stopped and forced off eastward, where he eventually made contact with the left of Buford's division. Hampton reinforced Jones on the hill, with the result that Gregg's troops were driven from it, the tactical outcome of the battle thus favoring the Confederates to the extent that they retained the positions they had held at the beginning.

General Pleasanton, who had personally directed this vigorous Federal offensive, the most telling that had yet been launched at Stuart's redoubtable cavalry, was at first of the opinion that the Confederates had been so badly crippled that they would be unable to continue their campaign toward Maryland and Pennsylvania. In this he was mistaken, as was soon demonstrated in the spirited cavalry engagements at Aldie, Middleburg, Upperville, and other places during Stuart's northward march in the Gettysburg campaign, and his ride around the Army of the Potomac, terminating east of Gettysburg. But the general results of these encounters showed clearly that since Brandy Station the Federal cavalry had become able to meet its opponent on equal terms, and the fight at Gettysburg confirmed the impression.

Like his infantry, Lee's cavalry at Gettysburg seemed to suffer from the fact that its leadership was less adroit than usual. According to Stuart's report, after frustrating an attempt of Pleasanton's forces to gain the rear of the Confederate army by way of Hunterstown on July 2, Hampton's brigade, with the rest of Stuart's troops, took position that evening near the York pike, at the left of Lee's army. Stuart's intention was to force his way through to Meade's rear and attack it, as Pleasanton had tried to attack Lee's.

But the Confederate cavalry chief complained later that various mishaps intervened to spoil his plans. The men of one of his brigades, that of Jenkins, though "in the presence of the enemy, allowed themselves to be supplied with but ten rounds of ammunition," and shortly afterward, as a consequence, were obliged to abandon their position during the height of the battle. Later, while attempting to execute a concealed march through the woods by which to turn the flank of Gregg's division, "Hampton's and Fitz. Lee's brigades unfortunately debouched into open ground, disclosing the movement, and causing a corresponding movement of a large force of the enemy's cavalry." To these misfortunes, and lack of coordination in the subsequent attacks, Stuart attributed the failure of his project to break through to the rear of Meade's army.

Although evidently not altogether satisfied, Stuart in his report paid tribute to "that brave and distinguished officer, Brigadier General Hampton," who was twice severely wounded in this battle. But Hampton found much to complain of, too. Reporting August, while still on leave, recovering from his injuries, he averred that while he was absent from his brigade by order of Stuart, looking for the latter, Fitz. Lee instructed Hampton's brigade to make a charge, thus disclosing its position. Hampton countermanded the order, but immediately afterward himself felt compelled by the situation to send two of his regiments to the support of Chambliss' brigade, when the latter was repulsed in a charge. Hampton's regiments went too far, and, in turn, suffered a repulse. Before they could rejoin their brigade, the latter, by whose order Hampton could not ascertain, united with Fitz. Lee's brigade in another attack which, like all the aggressive moves of the Confederates on this field, was repelled. At this juncture Hampton received his two wounds in quick succession and was borne from the field. His testimony, like that of Stuart, strongly indicates that both looked on more or less helplessly while the battle was decided against them by dispositions and movements of their own troops which they did not desire but seemed unable to prevent. None of the other Confederate commanders reported, but from the attitude of Stuart and Hampton it appears that no one in authority was anxious to avow responsibility for the celebrated "charge on close column of squadrons, saber in hand," by Hampton's Lee's, and Chambliss' brigades, which was met and broken up by parts of the Federal brigades of Custer and McIntosh.

Hampton, whose own men unquestionably confided in his abilities more implicitly than in those of any other leader, with the possible exception of Stuart, was unable, on account of his injuries, to command them in the trying operations subsequent to Gettysburg or for several months after that time. Meanwhile the gray cavalry was reorganized into a corps of two divisions, and Hampton, promoted to major general on August 3, was assigned to the command of the 1st Division, Fitzhugh Lee receiving the 2nd. In Hampton's absence, his division was di-

rectly commanded by Stuart during the last offensive campaign of the Army of Northern Virginia; that of Bristoe, in October, 1863. The division commander himself rejoined about November 10.

It happened that on the day of his return his brigade under General P. M. B. Young was engaged in a heavy skirmish with the hostile cavalry near Stevensburg, south-east of Culpeper Court House. As Hampton, scarred, and emaciated from his long convalescence rode slowly along the battle line, his soldiers recognized him and, in spite of the whistle of bullets and roar of artillery, cheered him heartily, and then turned to fighting with redoubled vigor.

Within a week their commander signaled his return by leading a detachment of fifteen hundred men across the Rapidan at Ely's Ford on the night of November 17, surprising and capturing a large part of a Pennsylvania cavalry regiment, together with two flags, a hundred horses and mules, and other booty, and returning by Germanna Ford, having lost only one man in the expedition. He carried out several other similar enterprises during the Mine Run campaign, after which the army went into winter quarters.

This season of quiet was disturbed at the end of February, 1864, by the Kilpatrick-Dahlgren raid on Richmond. As soon as the departure and intentions of these raiders were ascertained, Hampton pursued Kilpatrick with a force which was necessarily small because the cavalry picket posts along the Rapidan could not be denuded. Kilpatrick and Dahlgren pursued different routes, and after failing to make an expected junction near Richmond, Kilpatrick launched a feeble attack on the outer defenses north of the city and then drew off to Atlee's Station, where he went into bivouac on the evening of March 1st. Here Hampton boldly attacked him during that stormy night, his men creating such a turmoil with their "rebel yell" and the noisy use of carbine and artillery fire that the outlying Federal troops fell back in confusion. Kilpatrick gave up any idea of further attacking Richmond and, leaving Dahlgren to his fate, made his way rapidly down the Peninsula and entered the lines of General Butler's army. Hampton frustrated his efforts to rejoin the Army of the Potomac by land, and he was finally obliged to leave the Peninsula by steamer.

In the interval between the Kilpatrick raid and the opening of the Wilderness campaign, Hampton visited South Carolina and did what he could to recruit men and horses for his command. The division was still much depleted, however, and a number of the regiments were absent, when the Army of the Potomac crossed the Rapidan. From the first, Hampton was always in the heaviest of the cavalry fighting, generally engaged on the flanks of Lee's army, and he was performing this hard service on May 12 near Spottsylvania when Stuart, some forty miles away, was mortally wounded at Yellow Tavern.

Stuart's death brought Hampton into command of the Confederate cavalry at a time when such a responsibility might well have daunted the most courageous. Since the

beginning of the campaign the Southern horse had been outnumbered by the Northern at least three to two. But this was not the worst of the situation. For the first two years of the war Stuart had experienced little difficulty in maintaining a decided superiority over his opponents, if not in numbers, at any rate in general efficiency. But Pleasonton, from Brandy Station on, had infused a new spirit into his troops, and Sheridan, inheriting the corps, and availing of all his advantages to increase its numbers and perfect its equipment and discipline, led it into the Wilderness larger than it had ever been before. Here he began to use it, with ruthless determination, to pound the Confederate mounted forces to pieces if constant activity and aggressive fighting would do it.

By the time Hampton came to his command his troops were suffering from forms of deterioration which even the splendid individual qualities of officers and men could not wholly counteract. Further recruitment of personnel had become almost impossible, while that of horses could practically be effected only through captures from the enemy. Similar captures alone could overcome, even in slight degree, the handicap imposed by the superior equipment of the enemy, many of whose regiments were now armed with repeating carbines using metallic cartridges. It was increasingly hard to get food for both men and horses, and in the case of the latter the habitual shortage of grain and forage so weakened the animals that when necessarily pushed to the extreme of exertion, they collapsed sooner than the well-conditioned mounts of their opponents.

Under such conditions Hampton had to make a choice between two courses. Either he must admit himself hopelessly outclassed and submit to fighting wholly on the defensive, a course which would soon have created in his troops an expectation of continual defeat and broken their morale completely, or else he must devise methods of fighting which would, as far as possible, counterbalance his handicaps, conserve the courage and initiative of his troops, and inflict all possible damage upon the enemy. He chose the latter course, and to this day opinions among critics have differed sharply as to the degree of success which he attained. Some of his distinguished adversaries professed to look with contempt upon the "degeneration" of the Confederate cavalry, decrying its resignation of the bold shock tactics of Stuart, its avoidance of the use of the saber, its increasing inclination to resort to the dismounted fire fight. On the other hand, his own followers, and many others, as well, understanding the reasons for his tactical changes, have reasoned, not merely that he did very well with failing resources, but that, in fact, he showed surpassing skill in evolving methods whereby the power of cavalry was developed to its greatest possible extent, at the same time that its strength was husbanded as it could have been by no other means.

It seems unquestionable that Stuart himself, had he lived, would have been compelled by circumstances to adopt some such measures as those which were resorted

to by Hampton. Edward L. Wells, who served as one of Hampton's officers, briefly stated the advantages of the latter's tactics in his book, "Hampton and His Cavalry in '64," when he said:

"In dismounted fighting, performed skirmish-like in cover, where practicable; in a thin line to be strengthened, when advisable, the muzzle-loaders and smaller numbers were not at such a great disadvantage. . . . He could dash his force, mounted, to favorable points with great celerity, dismount and rush them in, and if advisable draw them out as quickly and hurl them on some other and weaker position. Thus he virtually multiplied his men, and the enemy would form an exaggerated impression of his numbers, and frequently mistook his cavalry for their *bête noire*—reinforcements of infantry. All this did not militate in the least against the efficiency of his command as a mounted force to be used, and brilliantly used, when occasion offered. We maintain that Hampton succeeded in making his men good, hard-fighting infantry on occasion, capable of practically doubling or quadrupling their strength by celerity of movement, and at the same time preserved intact all their good qualities as cavalry; and we contend that no man ever before had done this on the same scale so thoroughly."

Though fighting many hard battles during the spring and summer of 1864, perhaps the finest example given by Hampton of the efficacy of his methods was at Trevilian Station, June 11-12, 1864. Grant, preparing to cross the James River and attack Petersburg, formed a well-conceived plan for rendering that city and Richmond untenable to Lee by the destruction of their western and southern railroad communications. General Hunter was ordered to ascend the Shenandoah valley with an infantry column and cross over to Charlottesville, wrecking the railroad from the Valley to that point. Sheridan, with two divisions of his cavalry corps, was instructed to march rapidly northwest to Gordonsville, breaking up the Virginia Central Railroad as he went, and to meet Hunter at Charlottesville, after which their united forces were to push on to Lynchburg, demolish the railroads and the James River canal there, and then join Grant before Petersburg.

Sheridan started from the Pamunkey river on June 7 with a hundred and twenty-five wagons, including a bridge train, and 8,000 effective troops, according to his own estimate; 10,337 according to the organization returns of May 31. Fathoming his purpose, Hampton started next day from Atlee's Station with two divisions amounting, so General Butler, one of his brigade commanders, states, to 5,000 men, and, following shorter roads, by the night of June 10 was established at Trevilian Station, squarely across Sheridan's road to Gordonsville.

Early on the morning of the 11th Sheridan vigorously attacked the division of Hampton, who resorted to what his opponents called "woods fighting" in the heavy timber, in order to hold his position until Fitz. Lee's division should come up from Louisa Court House, which was behind Sheridan's left rear. So well did he succeed in delaying the advance of the Federals and absorbing their

attention that, though he was forced slowly backward, losing wagons, horses, and prisoners, in the end Custer's brigade, on the Federal left, was caught between the closing pincers of Fitz. Lee, attacking him in the rear, and Rosser's brigade, which, passing suddenly from the defensive to the mounted offensive, charged down the Gordonsville road into his front. Custer was badly mauled, losing not only the plunder he had taken, but some of his own men and horses and most of his transport. Contending, as he was until Fitz. Lee's arrival, against a disparity of numbers far greater even than that existing between the total bodies of troops, Hampton saved his old division intact only by indomitable nerve and judgment in drawing his troops slowly back, with stubborn fighting, from the converging lines of the enemy, threatening them on the north and the east.

Retiring somewhat at nightfall to stronger defensive positions, Hampton, now joined on the right by Lee, fought a dogged defensive battle on June 12 in which he was not budged from his positions, though these were repeatedly assaulted. At about dusk Lee pushed Lomax's brigade around the extreme Federal left, at the same time that Butler and Wickham, on the other flank, were repulsing the last Federal assault in that quarter. These successes were the signal for a general advance of the Confederate line, dismounted, before which Sheridan's troops fell back. That night they took up their return march toward the Pamunkey. Hampton followed, keeping south of that river, between the enemy and Richmond, but no further general engagement occurred.

Sheridan stated in his report that information received on the 12th convinced him that Hunter was still far from Charlottesville, and that no junction between their forces could be made; hence his own retreat. It seems entirely probable, however, that the results of the Trevilian fight confirmed him in his decision. Though he temporarily damaged the Virginia Central Railroad, on his return he reported to Grant; "I regret my inability to carry out your instructions."

Hampton kept almost constantly on the move during the remainder of the summer. Immediately after the return to the Peninsula, he attacked Sheridan at White House and Nance's Shop, but with indecisive results. Near the end of June he crossed the James to pursue General Wilson, who with nearly 7,000 men had set out westward from Petersburg to destroy the Southside and the Richmond and Danville railroads, by which Lee's army drew its supplies from the South. Wilson accomplished more destruction than Sheridan had done, but on his return toward Petersburg Hampton barred his path and at Sappony Church and south of Ream's Station defeated and scattered his forces, taking all his artillery, sixteen pieces, his wagons and ambulances, 1,300 prisoners, and a great number of horses. Wilson's division was long in recovering from the effects of this misfortune. In a period of twenty-three days, which included Trevilian, Hampton had captured 3,000 prisoners, his own total losses in the same period being only about 700 men.

At the beginning of August, Sheridan went to the Shenandoah valley, taking Torbert's cavalry division with him, soon followed by Wilson's. Gregg's remained with the army, and as Fitzhugh Lee's division was shortly sent to reinforce Early, who was confronting Sheridan, the cavalry fighting around Petersburg became for the time a contest between Gregg and Hampton. Early in August some of Hampton's troops fought creditably beside the infantry in a battle north of the James, where General Chambliss was killed, and on the 25th they divided honors with Heth's division, of A. P. Hill's corps, when together they flanked part of Hancock's 2nd Corps and compelled it to evacuate Ream's Station. But Hampton's most notable exploit during the early autumn was his "cattle raid" at Coggins' Point.

This place lies on the south side of the James River, about fifteen miles from Petersburg and not much more than five from City Point, which was General Grant's headquarters and the supply base of the Army of the Potomac. An industrious scout of Hampton's command brought him the information of the presence at Coggins' Point of "three thousand beeves, attended by 120 men and thirty citizens, without arms." In his report the scout added; "At Sycamore Church is one regiment (1st District of Columbia). This is the nearest point of the picket line to Coggins' Point; about two miles."

In the chronic state of hunger in which Lee's army existed at that time the prospect of beefsteaks was a greater incentive to valor than any amount of possible glory would have been. On learning the facts, Hampton promptly organized a column consisting of W. H. F. Lee's division, Rosser's and Dearing's brigades, and 100 men from Young's and Dunovant's brigades, and set out on the morning of September 14 on a circuitous route which led him far south of the Federal army investing Petersburg.

That night he bivouacked near the mouth of Rowanty creek and next day marched northeast to the Blackwater river at Cook's Bridge, twelve miles south of Coggins' Point and only nine from Sycamore Church, where he intended to break through the guard line. He selected the site of Cook's Bridge for crossing the Blackwater because the structure had long since been burned and the point was no longer guarded. But in a few hours, while his horses rested and grazed, his engineers threw over a temporary bridge, and at midnight, September 15-16, the column crossed and moved forward. Rosser's brigade marched directly on Sycamore Church, to overwhelm the enemy's main detachment and capture the cattle herd immediately in rear of it. Lee's division moved by roads leading to points a few miles northwest, where his troops could prevent interference from the rear of the Union army or its base at City Point, and Dearing's brigade to the northeast, to destroy the outposts of Fort Powhatan, on the James river, and forestall attack from that quarter.

At 5:00 a. m. Rosser charged the camp of the 1st D. C. Cavalry at Sycamore Church, and after a short and desperate combat rode over and scattered this regiment

and instantly sent forward a large detachment which took the cattle corrals and the 120 guards and herdsmen before the latter could stampede the nearly 2,500 fat beef steers under their care. He also set fire to three camps and carried off 304 prisoners, many horses, eleven wagons, three flags, and quantities of blankets, canned goods, and other booty. As soon as Rooney Lee and Dearing heard Rosser's firing, they charged down the roads to right and left of him, scattering stray Federals, who fled with wild rumors of the great force of the raiders. But probably before the news had reached City Point or the lines around Petersburg, Rosser's men, using drawn pistols to hold the herders to their accustomed work, were driving the cattle toward Cook's Bridge, while Lee and Dearing were drawing in as flank and rear guards.

Meantime, so deftly had Hampton and General R. E. Lee, in Petersburg, coordinated their plans, that at the hour Rosser attacked at Sycamore Church, Lee caused an infantry demonstration to be launched west of the Jerusalem Plank Road, driving in the Federal pickets, while Butler's cavalry became active on the outer flank. When General Meade received the news of Hampton's attack at Coggins' Point he believed, until too late, that it was a mere diversion to cover a serious offensive by Lee's army. Before nightfall Hampton had passed the cattle over the Blackwater, and then put another river between them and pursuit by driving them across the Nottoway at Freeman's Ford. On the Jerusalem Plank Road, thirteen miles south of Petersburg, Gregg and Kautz came up with their cavalry, but they were easily held off while the cattle passed on some miles south and were driven safely into Petersburg, to the great joy of the Army of Northern Virginia, which feasted on good fresh beef for many a day thereafter.

Some virtue must have been inherent in the tactical methods developed by Wade Hampton. In many of his engagements there was a surprising disparity between the losses which he suffered and those which he inflicted, generally with quite inferior numbers. In the Kilpatrick-Dahlgren raid, Kilpatrick's force numbered about 4,000 men and his admitted loss was 340. Hampton attacked Kilpatrick's camp at Atlee's Station with 306 cavalry and one four-gun battery, and though no statement of his loss has been found, it was insignificant, and necessarily much less than Kilpatrick's because the latter's loss was greater than Hampton's whole force. At Trevilian Station Sheridan had between 8,000 and 12,000 cavalry, and Hampton 5,000. Sheridan's loss was 1,007, Hampton's 612. At Sappington creek General Wilson, with 6,714 troops, lost 1,500, chiefly in prisoners, and much material, while Hampton's casualties were not over one hundred men.

The battle of Ream's Station was an affair involving both infantry and cavalry on each side, the Federals having Hancock's corps and Gregg's and Kautz's cavalry divisions, and the Confederates, A. P. Hill's corps and two of Hampton's cavalry divisions. The total Federal loss was 2,602, of which the cavalry sustained 140 casualties, while Hill reported a loss of 720, Hampton's loss being

94. At Coggins' Point the Federals had about 6,000 troops within striking distance of Hampton's 2,000. Their loss in prisoners alone was 304, together with 2,468 cattle. Hampton lost 61 men, killed, wounded, and missing. At Hatcher's Run, or Burgess' Mill, October 27, a battle of all arms in which the Confederates were on the defensive, the Federal cavalry amounted to 5,471 and returned a loss of 271. Hampton's corps, by the return of October 20, counted 5,375, but it was not all present at Burgess' Mill. He reported twenty missing, and though he did not report total losses, which may have approximated to Gregg's, he did report that his cavalry, which here fought altogether dismounted, alone captured 225 prisoners.

From the battle of Burgess' Mill until the end of the year field operations around Petersburg were unimportant, and Hampton's troops were able to rest for the first time in months. By the return of wounded, as well as by actual recruiting, the strength of the corps actually increased during this period, from 5,375 in October to 7,063 on December 1, which did not indicate failing man power, at least in the cavalry. But there were failures in many other essentials. A large number of these men were unmounted, the acute difficulty still being in finding horses.

In order to procure the absolutely essential mounts in the only way that seemed practicable, General Lee, early in January, 1865, reluctantly authorized Hampton to go to South Carolina, taking with him his own old division, now commanded by General M. C. Butler. The primary object was to find horses. But other ends could be served at the same time. General Joseph E. Johnston was sorely in need of reinforcements to aid in opposing Sherman's march through the Carolinas, and though General Lee was not at that time empowered to order Hampton into command of all of Johnston's cavalry, which embraced the corps under General Joseph Wheeler, he authorized Hampton, in addition to mounting and recruiting his own cavalry in South Carolina, "if a suitable command be given him, to operate it until recalled to Virginia." The opportunity never came to recall him to Virginia, but on January 16 Johnston assigned him to the command of all of the cavalry, including Wheeler's, which was operating against Sherman. On February 14 he was promoted to the grade of Lieutenant General, and his assignment brought him a few busy weeks just before the end of the war.

Wheeler's cavalry corps at this time numbered about 5,000 men, Butler's division about 1,200, so that Hampton's total forces considerably exceeded those of his old opponent of Virginia, General Kilpatrick, who commanded Sherman's cavalry division, numbering approximately 5,000 men. Johnston's infantry, however, was greatly exceeded by that of Sherman, and it was, moreover, much scattered as Sherman, in compact columns, moved up through South and then North Carolina, directing his march toward Petersburg, with the intention of joining Grant. The Confederate opposition was therefore quite

ineffectual, though Hampton, after the fall of Columbia on February 17, was able to somewhat limit the path of destruction of the Federal army by confining the activities of its foraging parties to a narrowed front.

Early in March Sherman turned his columns from the interior of North Carolina toward Fayetteville and Goldsboro, near the coast, where he could again communicate with the Federal navy. General Hardee, at the head of about 8,000 Confederates, was at Fayetteville, and Hampton, who had been operating on Sherman's left flank, determined to join him there for united opposition to Sherman's further march. Kilpatrick, in turn, divining Hampton's intention, rashly decided to head him off from Fayetteville.

Having crossed the Great Pedee river, after nightfall on the 9th of March, Kilpatrick, with two of his four brigades, about 1,500 men, arrived at a point among the swamps and pine forests where several roads converged from the west, east, and south. The place was called Monroe's Crossroads. Although he knew that he was ahead of Hampton, who had been following a road parallel to his own, but further north, Kilpatrick does not seem to have realized that at this point the two roads came together. On a tract of open fields just south of the crossroads, limited on the south and west by the swampy bed of Nicholson creek, he went into bivouac, sending a detachment of about forty men back along the road he had come to establish pickets and keep watch for the enemy. In the darkness these troops rode directly into the head of Butler's column and were captured to a man before they could raise an alarm.

Thus warned, Hampton disposed Butler's division, with a reserve brigade, on the road above the head of the swamp, ready to charge into Kilpatrick's camp at dawn. As Wheeler's divisions came up they were moved off to the right, to attack across the swamp and take the camp in flank and rear. The dispositions took time, and they had been hardly completed when daylight arrived. The gallant Butler rode to the head of his men, and shouting, "Troops from Virginia, follow me!" led them in a headlong charge which went completely through the Federal camp, sweeping up the awakened Union cavalrymen as prisoners or driving them, many almost naked save for cartridge belts and carbines, into the edge of the swamp. Four hundred, nearly one-third of the force, were captured; 175 Confederate prisoners were released. Kilpatrick himself, sleeping in a farmhouse, fled in his underclothes and had a narrow escape. For a few moments the entire camp, with the artillery and wagons, was in the possession of Butler's men.

But the Federals, veterans all, quickly rallied in the fringes of the swamp, and valiantly led by Kilpatrick and other officers, opened a hot fire from their Spencer repeaters. Only fragments of Wheeler's divisions were able to get through the swamp, Butler's supporting brigade failed to come to the aid of those already engaged, and shortly there was a turn in the tide of the whirlwind com-

bat. Butler found himself on the defensive and was forced gradually from the camp. Federal infantry of the 14th Corps, only a few miles distant to the south, was hastening to Kilpatrick's relief by a crossroad, while his two remaining brigades were approaching from the rear. Finding that he would only incur further, and fruitless, losses by continuing the fight, Hampton broke it off and, with his prisoners, retired, unmolested, in the direction of Fayetteville.

To the extent of having cleared the road for his junction with Hardee, Hampton had been successful. But, with a much more telling victory seemingly within his grasp, it is hard to understand why so able a leader failed to clinch it. For once, numbers were largely in his favor. He planned, and skillfully executed, a complete surprise. If Wheeler's divisions had attacked simultaneously with Butler's, Kilpatrick must inevitably have been crushed. But though the whole night was available for making the dispositions, Wheeler's avenues of approach through the swamp seem to have been insufficiently reconnoitered, and he could not get his men across in time to be of use. Again, Hampton failed to feed Butler's supports to the attack units when they were needed. Perhaps most important of all, he allowed circumstances to dictate a reversal of his usual mode of fighting. Butler made a mounted attack, and his men remained mounted throughout the action, becoming disorganized in the morning fog, once they found themselves amid the available plunder in the Federal camp. Kilpatrick's troops, forced to fight dismounted, kept their cohesion, and though badly outnumbered, were able to rally and present a united front for a prompt counter-attack.

Nine days after the action at Monroe's Crossroads, Hampton carried out far more complicated maneuvers with greater skill at Bentonville, where his cavalry played an important, if not the leading, part in a struggle which involved all the forces of Johnston's army.

This was Hampton's last important battle. About five weeks after its occurrence General Johnston, in consequence of Lee's capitulation at Appomattox, surrendered his own army at Durham, N. C. Hampton returned to his family and his devastated estates and for some years devoted himself to efforts to rebuild his ruined fortunes. But though, like nearly every leader of the defeated South, he passed for a time into obscurity, a man of his capacity and influence among his own people could not be kept permanently in obscurity. By 1876 the rigors of reconstruction and negro domination had become so intolerable to the white people of South Carolina that they united in a desperate effort to recover their own self-government. Hampton was nominated and elected by the Democrats as governor. He was re-elected in 1878, and during his second term was elected to the United States Senate, where he served for twelve years.

In this long term of public life he endeared himself not only to his associates from the South, but to his former opponents, by his high character and sound judgment, his personal kindness and tolerance. He became an inti-

mate friend of President Arthur, with whom he often went horseback riding and fishing. There were many Republicans in Washington public life to testify, as did Colonel A. K. McClure, who had been his enemy on the field of battle, that Hampton was "always one of the most conservative and patriotic of Southern law-makers," who "exhausted his efforts to suppress sectional strife, and pleaded for the restoration of fraternal relations between the North and the South."

In short, the ex-lieutenant general of the Confederacy, after the conflict was over, rendered to the people of his section as distinguished services in the field of statesmanship as he had rendered on the field of battle, and services which were more useful, because they helped to heal the wounds of the past. Yet if any man might have cherished bitterness, it was he. His youngest son, Preston, had been killed at the battle of Burgess' Mill, his beautiful ancestral home, "Millwood," had been totally destroyed by fire during Sherman's march through the Carolinas, and his ample fortune had been wiped out by the war and its aftermath. Just before his election to the Senate he had lost a leg as the result of an accident while hunting and this had added to his difficulties in earning a livelihood. Save for the salary pertaining to his official positions, in his later years he would have been almost penniless.

Although, from 1876 to 1890, Hampton was the symbol of the political regime in South Carolina, he was a conservative of the old school, and in 1890 he was defeated for a third term in the Senate by Benjamin R. Tillman. Not long after his retirement, however, President Cleveland appointed him Commissioner of Pacific Railways, a position in which he was retained by President McKinley until the fall of 1897. He then, at the age of nearly eighty years, retired to his modest home in the outskirts of Columbia. But he was not to remain here peacefully. In the spring of 1899 his house was burned, together with nearly all of his cherished personal possessions. Dauntless as ever, under whatever misfortune, the veteran wrote to a friend;

"I have saved some clothes, my gun, and fishing tackle. We are in an outhouse, quite comfortable. If I had only saved my tent, I would be all right."

He did not have to remain long in the outhouse, for his hosts of friends and admirers soon purchased and presented to him, though much against his will, a comfortable house in Columbia. There he resided through the last three years of his life, and there, after a short illness, he passed away on April 11, 1902. It is said that his last words were: "May God bless all my people, black and white." His funeral, which was more largely attended than any other ever held in the state, not even excepting Calhoun's, was conducted by Ellison Capers, the soldier bishop of South Carolina, and his body was laid to rest, without military ceremonial, by a few of the veterans of his "old division," later Butler's. Wade Hampton, gentleman and soldier, had become an inspiring tradition of his reunited country.

Symbolic Rites at Fort Robinson*

A CELEBRATION of historical significance and human interest took place at Fort Robinson, Nebraska, on September 5, 1934. Major Edwin N. Hardy, the Commanding Officer, had caused two monuments to be erected on the parade ground; one in honor of Lieutenant Levi H. Robinson (for whom the post is named), who was killed by the Indians on February 9, 1874, on Cottonwood Creek, near old Fort Laramie, Wyoming, while commanding a detachment of the 14th Infantry and 2nd Cavalry, which was guarding a wagon train of lumber returning from a Government sawmill at Laramie Peak; the other in honor of Chief Crazy Horse, who was killed at Fort Robinson on September 5, 1877, while resisting being imprisoned. He had been brought in to Fort Robinson for a council, as he supposed. When he found that he was to be locked up, he tried to slash his way through the guard with nothing but a butcher knife and was bayoneted by a soldier.

Crazy Horse was of the Ogalalla Tribe of the Sioux Nation. He was considered, both by his own race and by some American military authorities, as being the most talented of the Sioux warriors. He was a man of strong and heroic character and never became reconciled to the rule of the white man. He fought to the last to defend the land of his forefathers against invasion. It is said that he was the first to break the lines of Custer at the Battle of the Little Big Horn in 1876, and that his battle cry was, "Today is a good day to fight; today is a good day to die; cowards to the rear; brave hearts follow me."

A historian has stated, "As the grave of Custer marked high tide of Sioux supremacy, so the grave of Crazy Horse marked the ebb." Crazy Horse was a man who demanded and deserved great respect and admiration, both for his character and for his ability as a warrior. He was only 36 years old at the time of his death.

The monuments to Lieutenant Robinson and Crazy Horse are exactly alike, except for the inscriptions on the bronze plaques. The monuments were constructed of beautiful vari-colored hard rock from the Black Hills, South Dakota, formerly possessed by the Sioux Nation.

Major Hardy arranged with the Superintendent of the Pine Ridge Agency, where the people of the Sioux Nation now live, for a large delegation of Indians, including many old distinguished Indians, to come and live on the site of the old Sioux Agency during the three days of the celebration, the 3rd, 4th and 5th of September. The Indians began to arrive by automobile, horseback and wagon on Saturday, September 1st. By Sunday night there were more than 1000 Indians encamped on the Reservation.

On the afternoons of the 3rd and 4th, celebrations

were held in the City Park of Crawford; these included foot races, horse races, squaw races, buck races, archery contests, exhibition jumping, exhibition of breeding stock from the Remount Depot at Fort Robinson, etc. In these celebrations Indians, soldiers and people of this community participated, and on both occasions there was an attendance of 6,000. This is considered remarkable in this sparsely settled community, and in a town of only 1649 population.

During the entire encampment of more than 1000 Indians, not a single case of drunkenness was observed. There was no thieving, trespassing or disorder of any kind brought to the notice of the Commanding Officer. The Indians were exceedingly well behaved in every way. Hundreds of them were dressed in their native costumes and each night around a large bonfire danced for hours the various dances of their tribe. As may be imagined, this was a very spectacular scene.

The crowning event of the entire celebration was, of course, the unveiling of the twin monuments. From his ranch on the Running Water (originally christened "L'eau qui court" by the voyageurs) came Captain James H. Cook to head the white assemblage. Captain Cook was one of the first cowboys of this country. He



The Lumiere Studio, Crawford, Neb.
Chief Short Bull and Captain James H. Cook

*Adapted from data furnished by the Commanding Officer Fort Robinson, and from articles in the *Northwest Nebraska News*, Crawford, Nebraska, September 6, 1934.

helped drive cattle from Texas over the old Chisholm Trail in 1870 to northern range points. In the early '70's, he served as a scout and trailer with the Texas Rangers. In 1885-6, he served as an Army scout with the 8th U. S. Cavalry in the Geronimo Campaign. He was Headquarters Scout for General Nelson A. Miles during the Wounded Knee Campaign of 1890-1. Captain Cook was one of the greatest big game hunters of this country. It is interesting to note that in this ceremony Captain Cook was wearing the same buckskin suit he wore during the Geronimo and Wounded Knee Campaigns.

Captain Cook started the program by leaving the white assemblage at the Robinson monument to meet three chiefs representing the Sioux Indians, who were gathered around the marker to their warrior.

Under the leadership of Chief White Bull No. 2, Chiefs Red Cloud and Short Bull advanced to meet Captain Cook half way across the arena. Chief Short Bull was wearing the regalia which had won first place in the Tuesday contest, while the other chiefs were likewise dressed in gorgeous apparel.

After shaking hands with the chiefs, Captain Cook explained to them by means of the Indian sign language that the purpose of the meeting was a peaceful one. They concluded this ceremony by smoking the peace pipe.

Reverend George William, pastor of the First Congregational Church, Crawford, Nebraska, opened the program of speaking with a prayer, in which he expressed thanks for "the heroism of our kind."

Following a selection by the Fourth United States Cavalry Band from Fort Meade, South Dakota, Major E. N. Hardy, Commanding Officer at Fort Robinson, delivered the address of welcome. Expressing his thanks for public coöperation, Major Hardy pointed out the historical significance of the use of the Black Hills rock. "That territory was formerly possessed by the Sioux Nation and has a rich and significant historical background bearing upon the relation between the whites and the Indians during the seventies. May what you see and hear today be a solemn, impressive and pleasant memory throughout your lives and may these monuments endure forever as a modest memorial to an era in our development as a nation."

The 4th Cavalry Band then rendered a medley of "Garry Owen," the famous old 7th Cavalry tune, which was often played by its band when going into battle, and "The Wild Missouri," an old pioneer song often sung at Cavalry gatherings.

In the absence of John G. Neihardt, author of an epic, "The Death of Crazy Horse," selections from the poem were read by Karl L. Spence, publisher of the Northwest Nebraska News.

Early history of this western country was traced by Major General L. H. Bash, Quartermaster General of the Army, who came from Washington for the ceremonies. After outlining the beginnings of the early Indian trouble, Major General Bash told of the founding of old Fort Laramie by General John E. Smith and the subsequent slaying of Lieutenant Robinson there by the Indians. "As a result of what was considered a wanton killing, General Smith, at the head of a strong force, marched over to the White Earth country and established Camp Robinson."

An oration in the native Indian tongue was delivered by Chief Bad Wound, a judge at the Pine Ridge Agency. "We two races understand each other better now than we did in 1877, when Chief Crazy Horse died here where this monument has been erected in his honor. You white people are highly educated in books and know many things that we Indians do not know. On the other hand, we Indians love nature, love outdoors, love the trees, the streams, the green grass, the stars, the moon, the sun, the open prairies—they talk to us. We learn from them as the white man learns from his books. We need to learn from the white man, and the white man needs to learn from us. We will teach you. You will teach us. So, we'll go marching through life hand in hand under the same flag, guided by the same Great Spirit."

Henry Fielder, teacher in the school at Pine Ridge, acted as interpreter of Chief Bad Wound's oration.

"This is one of the most remarkable events in the history of the west, said the Right Reverend George Allen Beecher, Episcopal Bishop of Western Nebraska, in a brief address. "We have participated in a pageant of tragedy in which some gave their lives that others might

(Continued on page 80)



Indian Encampment on Site of old Sioux Agency,
Fort Robinson, Nebraska



Medicine Man Breast invoking the Great Spirit before
Monument to Chief Crazy Horse

The Lumiere Studio, Crawford, Nebr.

If This Be Treason—

By LIEUTENANT COLONEL ROWAN P. LEMLY
Infantry

IN a recent issue of the *INFANTRY JOURNAL* a well known officer issued a plea for more and better articles. I quote from his treatise:

"Orthodoxy has been defined as my own 'doxy' and heterodoxy as someone else's 'doxy'." The writer whether in the service or outside of it who indulges in heterodoxy—the character of being at variance with a commonly accepted doctrine—by saying something more or less new and stimulating, is likely to be criticized by those who are sticklers for orthodoxy. I think it must be conceded that discussion is an indispensable condition of the birth of ideas and knowledge. When criticism is prohibited, or even too seriously frowned upon, creative thought dies."

There's considerable meat in this excerpt. In my humble judgment the army appears more prone to orthodoxy than most professions in civil life. To put it baldly, too many officers are addicted to inertia in the origination of constructive ideas.

One can appreciate the necessity for conservatism in the adoption of new weapons and other military matériel, or in complete upheaval of doctrines on organization, or in radical changes of our views in the application of tactical principles. And, Heaven help us, no conservatively minded individual can criticize the snail's pace at which (through no fault of their own) our several laboratories function in the experimentation, test and adoption of new ideas. But an economical expenditure as well as a very careful distribution of our limited military appropriations is forced upon us. As a result we seem to be striving constantly to spread our meager allotment of butter over too large an area of bread. Requests for additional funds with which to experiment and effect radical changes are not received with open arms by members of the military committees in Congress. They are "from Missouri" and must be shown; to which viewpoint one can attach no blame. The result is many innovations from the old order of things which involve expenditures other than for bare maintenance of the existing military machine go on a treadmill where they are either ground into dust and oblivion or they come to life only in the face of dire national emergencies.

But mental activity and concentration, constructive thought, exchange of ideas and argument on ways and means to improve the military, particularly in the fields of weapons, organization and tactics, cost not one cent of our appropriations. Many civil corporations hold annual competitions among their employees and donate substantial prizes for the best ideas, plans or innovations which result in material savings or increased profits to the parent organization. Indeed, without such incentive, the fight to hold down one's job in civil life and to secure preferment in advancement result in constant effort and compe-

Some Controversial Infantry Views.

tion among those who refuse to be drones. Yet in the military—a most interesting and absorbing profession—the tendency of some officers appears to be to do their daily jobs reasonably well but to otherwise call it a day. Serious and studious meditation on ways and means to improve the machinery, mental concentration leading to constructive criticism and creative thought looking toward future and perhaps radical developments in weapons, organization and tactics—there is not enough of this in the service. Several years after the armistice the first vital changes since the World War took place in our infantry defense tactics. They were born of a confidential report on certain German tactical maneuvers!

One recalls with amusement the "normal attack" of bygone days—a set piece which we tried to adapt to all terrain and situations. And the "rally by squad" and "rally by platoon"—the infantry's answer to a cavalry charge which today on the advent of mechanized cavalry would be the very antithesis of what is needed. I wonder how much of our present set-up will be cause for levity in another decade!

It is my intent in this article to discuss more or less controversial matters pertaining to the Infantry and to express some very decided and perhaps heretical views in hope they may arouse interest, create argument and, finally, and most important, structural thought on those things which should be constantly uppermost in an infantryman's mind. I intend deliberately to rock the boat in the hope of arousing some occupants to wrath and protest. I am going to stir up and muddy the waters of a quiescent and possibly stagnant pool in the hope that others may be moved and set about refilling it with pure water.

As a starter I proclaim the theory that the rifle is no longer the basic weapon of the infantry and that it is not a suitable weapon with which to gain and maintain fire superiority—that much of our text on musketry is nothing but an antiquated thesis. When I express my views regarding these topics many say, "You don't expect to get an argument out of me, do you?" The fact remains that many officers still believe in Santa Claus. A recent issue of the *INFANTRY JOURNAL* carried an exposition on musketry that outrivals the training regulations in its optimism on the importance and efficacy of the rifle and of the collective fire of riflemen in gaining fire superiority.

I quote from Chapter I, Volume IV in the 1931-32 Infantry School Mailing List: "Dependence for gaining fire superiority is placed on what may be termed the base of fire. The base of fire of large units consists of supporting artillery. When we come to the infantry battalion its base of fire will be composed of machine guns and attached

howitzer weapons. A rifle platoon or squad, however, also may have a base of fire. . . . As a rule riflemen in the attack do not fire except at ranges under 400 yards. . . . Riflemen cannot be expected to reply effectively to hostile machine gun fire at long and medium ranges. . . . These quotations are not positive variances from existing training regulations on musketry but they certainly minimize the importance of the rifle as a satisfactory medium of gaining fire superiority on the battlefield. The Basic Field Manual on Musketry, approved and published for the information and guidance of all concerned March 1, 1932, is still in effect. It is the present official guide for our Regular Army, National Guard and Organized Reserves and for our highly impressionable young men in the R.O.T.C.

In spite of the Infantry School's statement that, as a rule, riflemen in the attack do not fire at ranges over 400 yards, we find the manual filled with unnecessary and wholly inapplicable technique on range estimation. With our rifle set at battle-sight there is little necessity for range estimation. The document contains a lengthy section on target designation mostly inapplicable to targets under 400 yards. Targets so close will normally be visible or will be simple to indicate; if they are not, one or two tracers will define them far easier than verbal description with the use of reference points. As for the designated method of securing distributed fire, most of the fire at less than 400 yards from the enemy will be in the nature of deer shooting. Besides when the fight gets to relatively close quarters men will not only normally but will insistently fire at targets they see regardless of orders. Finally, the intricacies of musketry as contained in our present guide will be more than we can expect from the civilian draftee in the next war. There will be little enough time to teach him essentials, much less to train and habituate him into doing things in combat which one finds rather difficult to enforce with well trained doughboys even in the piping times of peace.

In my opinion all the musketry applicable to my conception of the use of rifle fire in normal combat of the future can be boiled down to a couple of pages of simple rules and practical exercises. And here I take issue with the Perry addicts and other advocates for our present system of rifle marksmanship. Except for the possible specialized training of a few snipers armed with star-gauged rifles with telescopic sights, there is no practical reason for wasting ammunition at bull's-eye targets at known distances beyond 400 yards. First teach the rifleman to secure reasonable slow-fire accuracy up to 400 yards using battle-sight, then teach him to progress to rapid-fire without loss of effectiveness, and finally reserve the bulk of his limited ammunition allowance for practice under combat conditions at moving, bobbing and obscure field targets.

And these craven views come from one who had the privilege of serving on the musketry board at Galveston in 1913 under the tutelage of Colonel Eames, often referred to as the Father of Musketry. I would take nothing for that interesting experience, and at the time Colonel

Eames' teachings were a most valuable contribution to the service. But it must be remembered that the development of the machine gun and our appreciation of its future possibilities were at that time limited. Also our premises were based solely upon the use of a small but well trained Regular Army. We had not yet conceived the thought of a nation in arms. To any stormy protestants of these views I say, take any average group of enlisted men with six months to a year's training, place them under the average lieutenant of not more than two years' service, and put them through a comprehensive practical test in combat firing problems for which particular test they have not been specially coached in advance. From personal experiences of my own I believe the results would be highly unsatisfactory and conclusive. Can we expect more from drafted civilians trained and led into combat by young R.O.T.C. graduates who have had possibly the equivalent of ninety days' intensive training?

I make the statement which to many will seem heresy, that from a broad point of view the rifle has become secondary in importance among infantry weapons. Fire and movement is the basis of infantry offensive. Fire without movement is useless—movement without adequate fire support is suicidal. The infantry auxiliary weapons, the light machine guns, in particular, must be the mainstay in gaining and maintaining fire superiority. In the attack riflemen are the basic movement elements. Combined they form small, light, flexible, easily maneuverable groups, whose sole purpose is to close with the enemy. It is only in the last stages of the engagement, just prior to and during the assault, that the rifle becomes anything other than an emergency personal protection weapon. Only when supporting fire of machine guns must be lifted should rifle fire be generally resorted to. Only from that stage until the assault has been consummated do the rifle and bayonet become truly effective in deciding the issue.

In 1911-12, while on duty at the School of Musketry at Monterey, I saw operated a little device invented by an officer which, when attached to the trigger of the rifle and set to conform to a designated range, would permit the trigger to move only when the rifle was aimed near the target with sights set at the correct range. The device was for the purpose of conserving ammunition. The untrained recruit, or the trained rifleman under the influence of fear, excitement, fatigue and other battle reactions, could no more pump away hundreds of wasteful shots "into the blue." His sight setting had to be correct and he had to be "on" or the trigger would not squeeze—hence no shot. This device was looked upon as the idea of a crank and was treated with considerable levity. Yet I understand a group of trained soldiers in a combat firing test problem in which this device was used only got off 30% of their shots from one firing position about 650 yards from an obscure field target. This indicated that 70% of their shots would have been "in the blue" without this device due to a combination of factors. Range estimation,

target designation or control by leaders of fire units was faulty, or else the nervousness, excitement or fatigue caused by competition conditions, with an initial advance of a few hundred yards double time, materially affected the accuracy of fire. What would have been the results under the added stress of battle conditions?

These incidents have stuck in my craw for many years, during which time the fear of being considered out of line with generally accepted doctrines has kept me quiet. Modern improvements in the infantry's auxiliary weapons and in particular the possibility of light machine guns as part of rifle units force me to venture the following assertion:

No weapon of the shoulder type in which the personal elements of fear, excitement, nervousness and fatigue prevail and for which we normally transmit range, target designation and sight setting by word of mouth is a suitable weapon with which to gain and maintain fire superiority. The rifle in this capacity is a relic of bygone days. Why call on a boy to do a man's job? The only type of infantry weapon suitable to the mission of gaining and maintaining fire superiority is one mounted on a fixed base and capable of sustained rapid fire—one which can be sighted for the correct range, which can be aimed on an indistinct or concealed target, and then can be so clamped in place by a competent leader. Any private, no matter how "dumb," can then press the trigger and get effective results. The advent of a semi-automatic rifle would seem to dovetail with these views. If we did away with all thought of the fire-fight with shoulder weapons to gain fire superiority, the risk of ammunition shortage with the semi-automatic rifle would be minimized. A semi-automatic rifle for rapid fire at fleeting targets or at area targets under 400 yards in the final stage of an attack best seems to fill the gap between the lifting of fire by supporting weapons and the assault with the bayonet.

My second objective in this offensive is an attack against .30 caliber rifles and .30 caliber light machine guns. I trust no one conceives the thought that these weapons will ever be particularly effective arms against tanks regardless of what developments are made in their ammunition. Relatively small improvements in the thickness and quality of armor may neutralize the effectiveness of such developments. Admitting that the rifle under more favorable circumstances may become more effective as an anti-tank weapon, we have other arms whose primary function is anti-tank fire. So I assume we are all pretty much in agreement that the rifle and light machine gun have as their prime object the killing or wounding of human beings. The human skin does not possess the resistance of elephants or rhinoceros hide. I believe it has been definitely established that small caliber ammunition will kill human beings. Then why send a man to do a boy's job? With the prospect of adoption of infantry weapons whose chief characteristic is increased rate of fire ammunition supply becomes a vital factor. We also are ever trying to lighten the load of the foot soldier. Why persist in the .30 caliber weapons and ammunition when smaller calibers

will do equally well? By reducing the caliber of our small arms we accomplish one of two things—either we lighten the loads and bulk in weapons and ammunition from the front-line doughboy all the way back to the zone of the interior or we increase the ammunition carrying capacity of foot troops.

For those who argue that lighter weapons and ammunition do not always result in big enough "kills" I submit the following: An enemy slain in the enemy's ranks has only to be buried, whereas an enemy wounded must be fed, administered to, transported, quartered and clothed.

My third heresy deals with organization. In explanation of certain features of the proposed organization, it should be stated that it presupposes the adoption of a light air-cooled machine gun of approximately 1,800 yards effective range, mounted on a low inconspicuous tripod. If practicable both gun and tripod should be transportable by one man, otherwise the weapon should be easily transportable as a two-man load—a one-man gun and a one-man tripod load. It should be capable of rapid sustained fire in bursts of at least 20 shots. This light machine gun should be a weapon of the rifle company or its counterpart and the gun and tripod should be carried into battle by two men of the squad that is armed with it.

Such a gun could keep up with the riflemen and furnish close in support during the critical first phase of the combat. This was something our heavy machine gun was seldom able to do in the World War. The almost universal experiences were that the machine guns could not keep up and seldom got into action after the advance started.

True, a light machine gun would not be as effective as our present weapons in furnishing overhead fire in the early stages of the attack, but how often is effective overhead fire practicable? The Fort Benning reservation, with its general adaptability to this type of fire, is the exception which proves the rule. Moreover, overhead fire of our present machine guns supporting rifle advance attacking an enemy position must often lift prematurely because such fire becomes masked before or at the time it is most needed.

My theory as to the use of the light machine gun is that it should be used only in direct fire—all indirect fire missions being assigned to the .50 caliber machine gun, infantry mortars and artillery. Indirect fire barrages by machine guns in the World War rarely, if ever (except in Flanders—and the fields of Flanders are rare exceptions in the conformation of this world's terrain), produced sufficient casualties on the enemy or sufficiently denied him the use of terrain to warrant the ammunition expenditure. Moreover, by doing away with the indirect fire of light machine guns, the combat training problem of the civilian soldier, thrown into action on relatively short notice, is materially reduced.

As a further explanation of the proposed reorganization, I submit the following theory of attack technique: The capabilities and limitations of infantry weapons and the terrain control this technique. Fire and movement

are basic. Increased effectiveness of fire support elements and increased facility of maneuver concealed from enemy view by movement elements are the advantages for which we constantly strive. We have two separate and distinct elements to coördinate. Light machine guns as supporting fire elements and small groups of riflemen (I term them weapons) as maneuver elements. The characteristics of these two weapons must be adapted to the terrain in any particular situation. The light machine gun cries for commanding ground from which a view of the enemy position within effective range provides direct fire with slight defilade and observation for fire effect. The movement elements, small groups of riflemen, cry for covered and accessible routes of approach toward the enemy, concealed lines of departure as close to the enemy as possible, defilade against enemy supporting fires, routes of advance which will not mask our own fire support, protected flanks, flexibility of maneuver, feasibility of contact between adjacent elements, and practicability of control. This is a large order for the movement elements and it is not to be expected that all of the desired advantages will be present in all situations. The advantages and disadvantages must be weighed and compromises made.

Our reconnaissance of any terrain over which we intend to attack reveals certain general areas best adapted to fire support and certain general areas best adapted to maneuver purposes. How to make the most harmonious use of these areas is a vital consideration in the adoption of a plan of attack. The battalion commander is mostly concerned with a tactical plan based upon his regimental

commander's orders. He is also concerned, however, with securing suitable positions for fire support by his Support Company weapons (See Support Company, Chart I) and with the assignment of zones of action for his Assault Companies (See Chart I) which will afford them, locally, terrain suitable for fire support and terrain adopted to maneuver. In his turn the Assault Company commander within the limitations imposed by the battalion commander, seeks commanding ground for fire support by his light machine gun platoon (Chart I) and suitable covered approaches to the enemy position for his assault platoons (Chart I). If no suitable ground for initial effective fire support exists he may attach all or any of his light machine guns to his movement elements.

The above views do not clash with the existing conception of the application of tactical principles in the attack. They merely vary somewhat the technique of attack by laying greater emphasis on fire and movement and by more closely adapting the characteristics of supporting fire elements and of movement elements to the terrain.

The two charts illustrating this article represent my views on the reorganization of the infantry battalion and regiment to conform to the foregoing theory as to weapons and my conceptions of the infantry attack. Note the changes in designations which, in my opinion, better depict the functions of units. In the Assault Company there are only two Assault Platoons. It is believed that, with the Support Platoon providing fire, two maneuver elements are normally sufficient. However, there is no objection to these assault platoons each consisting of four

INFANTRY BATTALION

BATTALION COMMANDER

STAFF

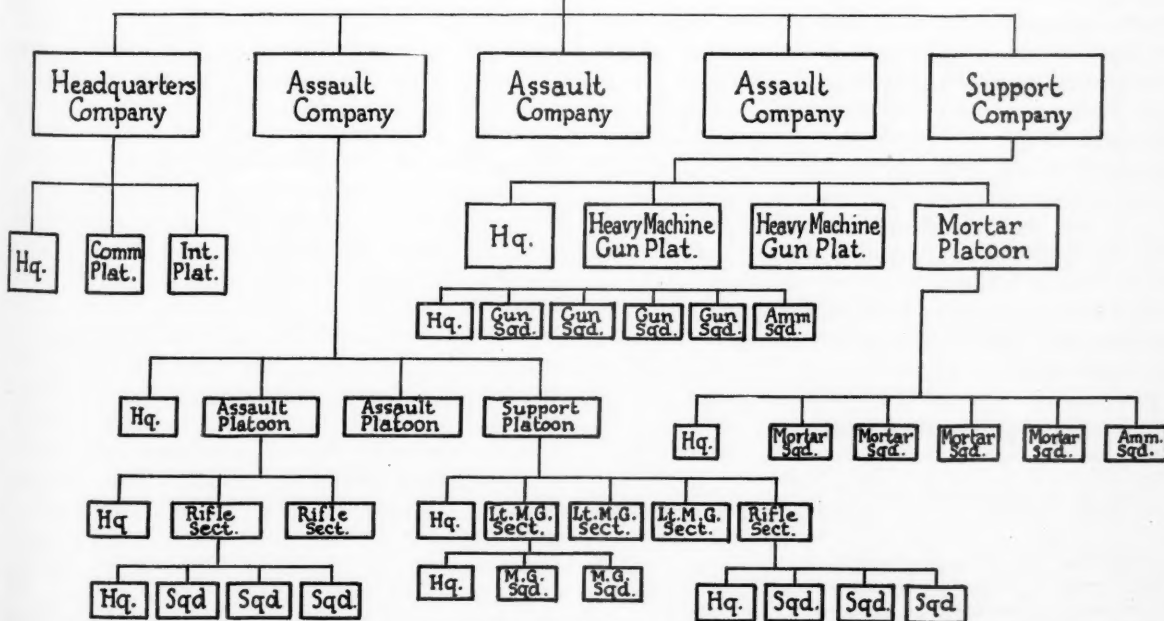


CHART I

squads. Three Assault Platoons would make the company too big and unwieldy. In the Support Platoon there are three sections of light machine guns. It is believed that six guns are better than four to provide adequate fire support. It also enables the company commander to attach a section to each Assault Platoon, while retaining one for general support in situations dictating such distribution. Note the rifle section in the Support Platoon. Its functions are many—local protection of machine guns, securing advanced gun positions before forward displacement of machine guns, flank security, patrolling and finally, as initial replacements for the company. In the initial stage of an engagement under the existing organization we so often find detachments and casualties necessitate early reorganization—sections reduced to two squads and perhaps the company reduced to two platoons. This section of riflemen provides for immediate replacements which are not often forthcoming and enables us to maintain longer the battle integrity of combat organization.

It is quite possible that tests may develop the fact that a better organization for the assault company would be one of three assault platoons each containing a section of light machine guns. Such details of organization should be settled upon only after exhaustive trials.

There are those who advocate reorganization of the infantry as light and heavy infantry. As I understand it, they believe the battalion should contain no heavy auxiliaries. Its weapons are the rifle and light machine gun (hand carried) or automatic rifle. The anti-tank and mortar auxiliaries constituting the heavy infantry are held in the regiment except for attachment to battalions as needed when entry into action is imminent. I do not subscribe to this theory. My suggested organization provides for light maneuver elements (light infantry) in the Assault Companies with the Assault Platoons. But I will argue till doomsday in favor of the heavy auxiliaries always being component elements of the battalion. I view the combat of infantry (below the division) as the engagement of two basic elements: (1) local engagement of platoons—the largest groups that can be controlled by one officer—coordinated in fire and movement *technique*; and (2) the engagement of battalions which should contain all the combined infantry weapons (except tanks) coordinated in fire and movement *tactics*. As a battalion commander I want all the elements which I will normally use in battle under my immediate control

in both peace and war to discipline, to train, and to work with. Only thus will it become imbued with that mutual respect and confidence through close association, man with man, unit with unit, which is so important a factor in teamwork. I do not subscribe to the view that future battalion commanders from the Organized Reserve cannot be trained effectively to use the combined infantry weapon team effectively in a major emergency. They need understand only the possibilities and limitations of the weapons and their adaptability to infantry tactics which latter they should know anyway. I believe any intelligent civilian can be taught these matters in relatively short time.

The present rifle company, which in the suggested organization becomes an assault company, and the regiment, I view solely as intermediate steps interposed for administration, control and supply reasons. Any officer imbued with positive leadership qualities who understands the technique of platoon combat and the tactics of battalion combat should, in so far as his infantry knowledge is concerned, make an able division commander. It will be noted under the Support Company that the section is omitted as unessential. The anti-tank weapons as such would in all probability function singly—all the weapons when used for supporting fire under battalion control would be handled by platoon.

In the suggested regimental organization it will be noted that no auxiliary supporting weapons exist as separate units. With those units in the battalions where I insist they belong the chief combat functions of the regimental commander are the control of the initial disposition of assault or front line battalions and the influence he can thereafter exert through the use of such reserve battalions as he sees fit to hold out.

Attention is invited to the Replacement Company in the regimental organization. Just as the rifle section in the Support Platoon of the Assault Company (Chart I) is among other functions for *immediate* replacements in the company, the Replacement Company provides for *prompt* replacements to battalions. In time of peace this unit would be the recruit center of the regiment.

I fear the injection of these replacement elements within the battalion and in the regiment is a mooted question which will arouse many voices in dissent. So much the better. Officers with considerable front line experience advanced the idea to me and their arguments in favor thereof were sound and practical. However, it increases the battalion strength by 78 men and the regimental strength by 234 men plus whatever strength is given the Replacement Company. Some may argue that rather than have these individuals as prompt replacements of casualties in order to longer maintain the combat organizational integrity of units they could be more effectively employed as a fresh unit with which to influence the action. Some may advocate omitting part or all of them. Without going into details, it is interesting to note that the suggested organizations call for approximately the same strength in personnel yet provide a decided increase over the present organization in supporting fire power.

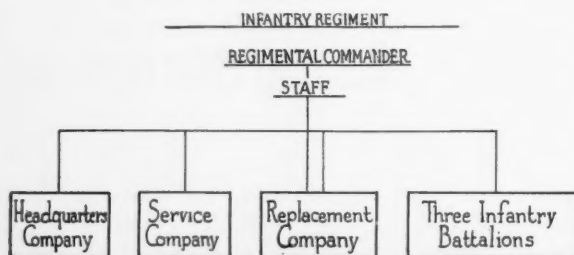


CHART II



Part III

WHAT HAS GONE BEFORE: Captain Cochrane, Lieutenant Hazzard, and a company of Macabebe Constabulary have been set ashore at San Ramon, Samar, with ten days' rations, to hold that town and operate against the insurgent Pulajanes. Upon landing it is found that the town has been burned and that the inhabitants have either fled or been killed. A stockade is erected and Captain Cochrane awaits supplies before taking the offensive. After two months these have failed to arrive, the men living on bats, snakes, fish, and other jungle edibles, so Cochrane takes half the company and marches inland. Crossing a trail of hundreds of Pulajanes moving towards the coast, he makes a forced march back to the fort, just in time to help repel an attack by the fanatics.

The food situation now being precarious, Cochrane, Hazzard, and sixty of the men in best condition, move south to obtain supplies. In an exhausted condition they arrive at the Oras river, and are fired on by American soldiers in a launch. Now go on with the story.

RESTRAINING an intense desire to race along the bank after the launch, to shake his fist at it and to curse the men on board for dirty cowards, Cochrane arose and assembled his men. Fortunately the mud in which they lay had protected them and no one was injured. He spoke comfortingly to the Macabebes, although his voice was shaking with rage. He told them that they had been taken by the officer on the launch for Pulajanes, a natural mistake because ragged and muddy as they were, they were unrecognizable as soldiers; also that no other soldiers besides themselves being brave enough to march through the interior, their presence on that river was unexpected and consequently caused fear; finally that the passage of the launch with soldiers on it was conclusive evidence that there was a military post somewhere down stream to which he proposed to proceed by means of raft, the construction of which would be started at once.

With their habitual submission to his will the men started to work. It was difficult to find any vegetation not covered with an armor of spines, but eventually several smooth-trunked trees of the proper size were found. The men started to work to fell them but when Cochrane saw that the wood was of compact fiber and very tough, he concentrated efforts upon one tree. With infinite labor this

tree was hacked down, trimmed and the trunk carried to the stream. The log was astonishingly heavy for its size. When it was thrown into the water, it sank like a stone. At this the exhausted men flung themselves on the ground in despair.

Meanwhile there had come a change in the moist sticky atmosphere that during the day had seemed to bear down upon the men as though it were a crushing weight, making even the slightest movement an effort which brought the perspiration streaming from every pore.

Oblivious for the moment of what was taking place around him, Cochrane stood in the midst of the prostrate men racking his brain in the endeavor to think of some expedient that would apply to the situation. He was an ardent reader of military history and often quoted to himself the statement credited to Napoleon that "In war the happiest inspiration is often but a recollection." But in this case the recollection of the cowskins stuffed with straw used by Cæsar as floats for transporting men across streams brought no inspiration whatever.

Hazzard moaned when the rain began to fall and the sound brought the Captain's thoughts back to the present. The sight of the sick Lieutenant suggested shelter, and as his eyes roved about the jungle in search of suitable material with which to construct it, they fell upon the broad leaves of a cluster of wild hemp plants growing on the bank a few hundred yards up stream. Then the inspiration came. The plant called by scientists *Musa Textilis*, from which Manila hemp is produced, belongs to the same family as the banana, for which it is sometimes mistaken. The trunk or stalk is often a foot in diameter

The story set forth in "Jungle Warfare" is historically correct. It depicts incidents which occurred on the Island of Samar, P. I., in 1903-1904. The "General" was the late Major General Henry T. Allen, who commanded the 90th Division during the World War, and later was in command of the U. S. Forces on the Rhine. Captain Cochrane is now a field officer in the Regular Army. Lieutenant Hazzard was a Constabulary Officer of that name. First Sergeant Bustos and various other men of the company belonged to the company of Macabebe Scouts that took part in the expedition under General Funston which resulted in the capture of Aguinaldo.

but it can be felled easily with one slash of a *bolo*, and although it has the appearance of being water-logged it contains innumerable air cells that give it buoyance. Here was something far better for a raft than inflated cowskins. The Macabebes took to the idea with zest; in fact many of them had utilized the plant before in crossing wide streams by swimming, one or two stalks having sufficient buoyance to support a rifle and set of equipment. Nevertheless in their worn out and apathetic condition, none had thought of the expedient at this time.

Within two hours a raft of double thickness of stalks over a hundred feet long and thirty feet wide had been completed. The stalks were fastened together by cross pieces, tied somewhat precariously with strips of raw fiber. The Company was about to embark, when to the Captain's consternation he saw that the entire river seemed to be flowing up stream. A moment's reflection, however, brought the realization that the river was tidal and would again flow in the desired direction after a lapse of about six hours. The embarkation was stopped, therefore, and the men lay down in the rain to await the turn of the tide, the mere cessation of mental and physical effort being a delicious luxury. At about midnight the expected change in the current was reported by the sentinels. The Company then got on board the strange craft and set out upon what it was hoped would be the last and easiest stage of the journey to the sea.

The first night on the raft would have been relatively comfortable had there been food and shelter. Only a few times was it necessary for the sentinels to arouse the men to push the raft away from the bank or to warn them of the danger of being swept overboard by overhanging boughs. At daybreak the raft was made fast to the bank and the men went on shore in search of edible plants and roots. A few small birds were seen but as there were not enough to feed everyone the Captain would not permit the men to disclose their presence by firing at them. The river was simply alive with crocodiles, some over twenty feet in length. The famished men looked hungrily at them and Cochrane promised to let them shoot one if food of a less repulsive nature was not found by the following day. Attempts to make a fire with flint and steel and the powder from a cartridge were unsuccessful, all the wood in the vicinity being too damp to ignite, so the few handfuls of rice carried by the Captain were soaked in water and given raw to the sick men.

The journey was resumed in the afternoon when the tide began to ebb and was continued until nightfall. The

river had become more winding and the character of the banks had changed greatly. Instead of the usual jungle-covered flats on either side there were now high cliffs of solid rock that formed a canon through which the pent up waters flowed with increased rapidity. On the re-entrant side of the river at each sharp bend the action of the water had worn deep fissures extending far under the precipice, and in these caverns the seams of harder rock, less susceptible to erosion, remained as jagged splinters which projected like monstrous teeth, both from the bottom and from the low hanging roof. To the soldiers lounging comfortably under the awning on the powerful launch these places presented, no doubt, merely a curious spectacle, but to the starving and exhausted Constabulary drifting at the mercy of the current on an unwieldy mass of vegetable pulp held together only by frail lashings fast coming apart, they were places of horror.

Fortunately the first cavern was encountered when the tide had almost ceased to ebb. The raft drifted into the orifice and the men on it could do

nothing except to push against the roof in order to keep from being scraped overboard. They managed to extricate the raft in this way, although a large portion of it was torn off by the tooth-like rocks under water. The finishing touch to the horror of the place was added by the immense crocodiles which infested it.

This experience taught Cochrane a lesson. He tied up the raft before the next bend was reached and obtained a number of long poles during the six hour period of waiting. He was disinclined to continue the journey on the raft, but there appeared to be no other alternative so the order was given after midnight to push off, and once again they were adrift in darkness at the mercy of the current.

Cochrane declared afterwards that of all the varied experiences of his life that night was the most harrowing. The proximity of a cavern could be determined by the lapping noise of the water against the roof and by the rank, musty odor emanating from the crocodiles. The poles were called into play again and again to fend the raft away from these dreadful places. The darkness and rain added to the danger. Several times large pieces of the fragile craft were torn loose and there were many narrow escapes, but by hard work and good fortune the company won through without losing a man.

At daybreak the ruins of a house and some cleared patches that had once been under cultivation were in view. The raft was practically dropping apart so the men were landed and it was abandoned. There was a trail here



—it sank like a stone.

leading down stream but Hazzard and at least ten others were unable to march. Having had enough of traveling by raft, Cochrane decided to select twenty of the strongest men and to push on by marching until he found the military post or some other place where food and boats could be obtained. He informed Hazzard of this decision and cautioned him to keep the men together. He also called the senior sergeant aside and told him that during the Lieutenant's illness he must see that the proper measures for security were taken. Then he spoke a few words of encouragement to the men he was leaving, and after shaking hands with Hazzard, set out upon the route downstream.

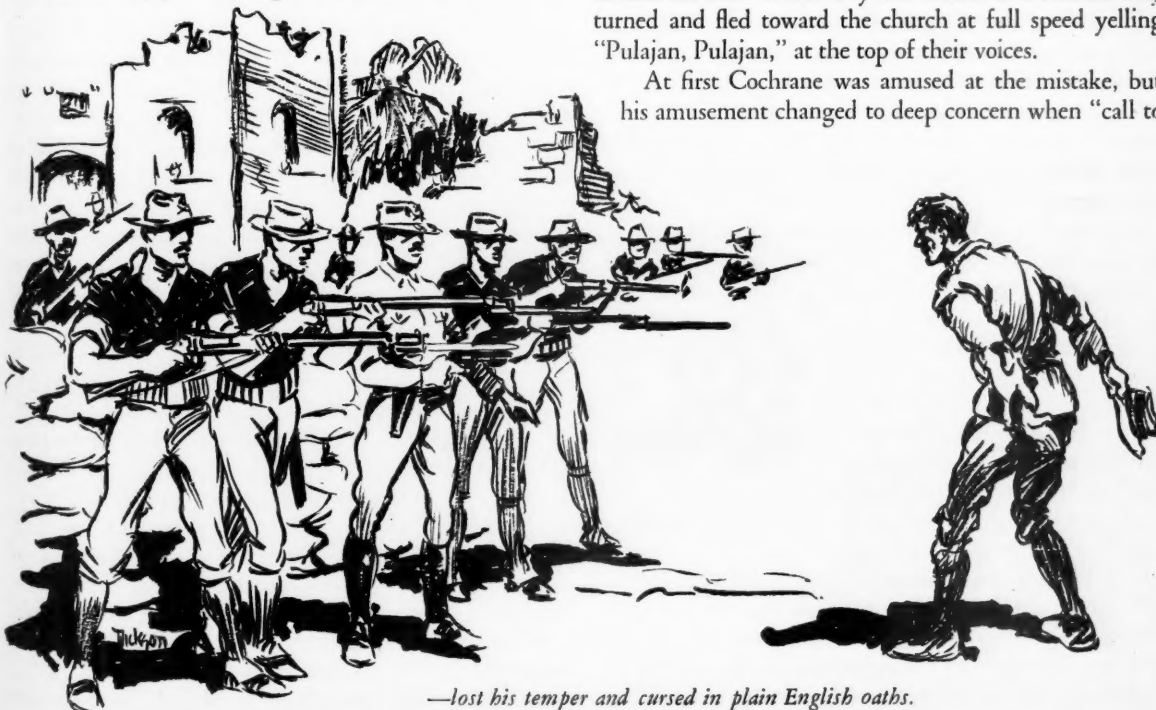
The trail was overgrown and there were the usual features of ridge and morass with the ever-present mud and leeches to make marching a misery. Worst of all were the sloughs marking every valley line where the slimy water ebbed and flowed between steep banks of mud. During ordinary times such places were bridged with a few bamboo poles, but the bridges had now rotted down and each crossing presented a difficult problem to the exhausted men. Nevertheless, with infinite tenacity and resourcefulness the Captain led them on throughout the long morning and afternoon until, emerging at last from the forest, they came upon fields of growing rice beyond which could be seen the ruins of a town, and in the background the sea. Oras, situated at the mouth of a navigable river draining an extensive region rich in hemp, had been a prosperous trading center of over ten thousand inhabitants, but not one of its buildings had escaped the holocaust inflicted by the Pulajans. Even the church had been gutted by fire but the stone walls remained standing, and floating from the tower was an emblem the sight of which thrilled Cochrane with joy—the Flag of the United States.



—the coffee contained sugar.

The accumulated miseries of weeks were forgotten and the little detachment, which in the clear light of the open had the appearance of a procession of scarecrows, moved forward with quickened pace in happy anticipation of the meeting with friends soon to follow. As they approached the town they saw that the landing place was stacked high with boxes, sacks and crates and that parties of blue shirted soldiers, both American and native, were engaged in transporting articles from the stacks at the shore to where other stacks were being made in front of the church. Then their attention was attracted by three natives who appeared a short distance to the front. Evidently they were men of the town on patrol duty, as they carried *bolos* and spears and each wore a band of white cloth around his hat. When they saw Cochrane's column they turned and fled toward the church at full speed yelling "Pulajan, Pulajan," at the top of their voices.

At first Cochrane was amused at the mistake, but his amusement changed to deep concern when "call to



—lost his temper and cursed in plain English oaths.

arms" was sounded and the working parties dropped their loads and dashed for the church to reappear presently with rifles in hand on the walls of the building. Other soldiers took position in rear of a barricade formed of ration and ammunition boxes, and the ugly muzzle of a gatling gun, emplaced in the tower, disclosed itself from behind a parapet of sand bags. Within a few seconds the animated scene in the camp had changed to one in which nothing was visible of the garrison except the barrels of rifles, with bayonets fixed, protruding from behind cover, and every weapon was pointed at the forlorn little party of Constabulary.

Dismayed at the inhospitable reception, Cochrane halted his men near the outer edge of a barbed wire entanglement which enclosed the camp and moved forward alone, at each step expecting to become the target for hundreds of bullets. When he reached the barbed wire he received a peremptory order to halt and did so, indignation welling strong within him. Then the church door opened and a party of about twenty men advanced with rifles at the "ready." Recognizing the officer who led the party, the Captain spoke to him, but he could hardly make anyone realize that he was not an enemy and it was only after he had lost his temper and cursed vehemently in plain English oaths that he was admitted to the enclosure.

"What's the matter with you people, Ballard?" he said to the officer. "First you open fire at me from your damned launch with a gatling gun and now you receive me as though I were Papa Pablo himself."

The Lieutenant had not yet recovered from his astonishment. "You don't know how near you came to being killed, Cochrane," he gasped. "If one shot had been fired, you and your men would have been wiped off the face of the earth. How did you get here anyway? Don't you know that the whole country is alive with Pulajans?"

"Yes, I expect I know more about the Pulajans than you do," was the response. "And now, if you will be so kind as to admit my men, I will report to your Commanding Officer."

Captain Todd, U. S. A., the officer commanding the two companies of Regulars and one company of Scouts that formed the garrison, was not a popular man in his regiment ordinarily, and was even less so in his temporary capacity as station and battalion commander. The alarm into which his command had been thrown by the arrival of Cochrane's detachment had annoyed him and his manner was everything but cordial. He did not ask Cochrane to be seated and the Constabulary officer's request for the loan of the launch to go after the men left up the river was met with a refusal as curt as it was unexpected. Cochrane thought of Hazzard and

the worn-out Macabebes anxiously awaiting the aid he had promised to bring them, and by a great effort of will kept his temper.

"May I ask your reason, Captain Todd," he said, striving to speak with calmness, "for refusing to give me the help that for the sake of common humanity I have a right to expect of you?"

"I am not in the habit of giving an explanation for my decisions," the Captain of regulars responded pompously: "However, I am willing to inform you that I am holding the launch for the use of the General, whose arrival I expect daily, and also that I do not propose at the present time to risk sending men of my command up the river where Antonio Anugar, with the main body of the Pulajans, is known to be operating."

"But my men are dying of hunger and can't march. It will take only a few hours for the launch to make the journey and I have reason to know that Anugar's band is not on the river," Cochrane spoke earnestly, almost pleadingly, for the vision of his starving men haunted him.

His persistence only angered the other who began, "Do you, a mere Constabulary officer, presume to argue with the Commanding Officer of this station?"

Cochrane's lean face flushed. "I don't presume anything," he interrupted, "I tell you as a fact that I have destroyed Anugar's band and furthermore that although I am, as you say, a mere Constabulary officer, I take my men in the field to fight, instead of keeping them shut up behind barbed wire."

"What do you mean by saying that you have destroyed Anugar's band?" Captain Todd exclaimed, ignoring the reference to the barbed wire.

Cochrane drew himself up, "You have told me that the General will arrive shortly, I will make my report to him," he responded, "and now, Sir, with your permission, I shall try to find some native boats as I intend to go back up the river tonight."

Captain Todd may have felt that he had failed so far to show the traditional hospitality of the Regular Army; at

any rate his manner now became more cordial and he pushed over a box of cigars and invited his guest to take a chair, saying that there was no use in being in a hurry and that dinner would be ready soon. Cochrane declined his belated offerings and withdrew. At the door of the office he was seized upon by Ballard and some other junior officers who were waiting for him. They bore him away to the mess and

proffered him food, drink and tobacco, all of which he refused until he had first seen that his men were provided for, and then had enjoyed a bath and the delicious luxury of putting on clean clothing.

Ballard was indignant when he learned that the request



Every man clamored for the privilege of going.



The situation for the moment was critical.

for the launch had been refused. "I knew old Toddy would rub Cochrane the wrong way but I never thought he would do that," he said to the other juniors. "We'll get boats from the natives and go after your men tonight when the tide turns."

"I'll take a detachment from my company so your men can rest," said another Lieutenant.

"It won't be at all necessary, as a good meal and some cigarettes will put new life in my men," answered Cochrane, not wishing to mention the Commanding Officer's refusal to permit his men to go to the rescue. "All I ask is that you get me the boats and some food and cigarettes to take with me," he added.

The battalion quartermaster, who was an old friend, promised to have everything in readiness, so Cochrane went to notify Sergeant Alalay of the hour of departure. Ballard led him to the mess of the Scout Company, which was also from Macabebe, and he found his men in good hands as many of the Scouts were their relatives or friends. Each Constabulary soldier had a heaped up platter of rice and corned beef in front of him and was engaged in making away with it without bothering about such superfluous accessories as knife or fork, nor was there any pause in the operation except when some man, to save himself from choking, had recourse to the quart pot of coffee at

his right hand. It did him good to see them eat, and he remained outside the tent watching them until Sergeant Alalay saw him and rushed out, tin cup in hand, to announce that the coffee contained both sugar and the hitherto unheard of luxury of evaporated cream.

Without Cochrane's knowledge, Ballard asked permission of the Commanding Officer to accompany him either with a detachment of Scouts or as an individual volunteer, but the request was refused. Leaving at dusk Cochrane made the night journey up the river in the flotilla of small boats manned by natives safely and in relative comfort. Only those who have been in a similar situation can appreciate the feelings of Hazzard and his men when they were aroused by the approach of the boats and heard Cochrane's voice in response to the hail of the sentry. They had resigned themselves to an indefinite period of waiting and his return was not expected for several days at the least. None was too ill to partake of the food, but when the cigarettes were distributed, the cup of contentment was filled.

With the outgoing tide to favor them and fear of the gloomy forests as an urge to the boatmen made good time on the way down to Oras, the flotilla arriving at the station before noon. Lying at anchor off the port was a ship which Cochrane recognized as the *Basilan*. The return

had been reported by the sentry in the church tower and Ballard was in waiting at the landing place with information that the General had arrived and wished Cochrane to report to him. As Ballard had made arrangements for quartering the Company and conducting the sick men to the hospital, the Captain proceeded at once to headquarters. He found the General in conference with Captain Todd and some other officers, one of the new comers being a Captain Nicklin of the Scouts, with whom he had served on several former campaigns.

An officer of high ability and splendid presence, the General possessed, among other unusual gifts, the faculty of gaining the affection as well as the respect of all who served under him. He looked up from the map he was studying as Cochrane reported and smiled genially. "Well, young man, we were just talking about you. I am glad to see you," he said as he shook hands with the Constabulary officer. "You know Nicklin and Cook. Todd tells me you showed up here yesterday in rather a bad way for food. Aren't you quite a long distance away from your station?"

"It was the lack of food that brought me here Sir," Cochrane answered.

"That's odd," said the General. "Unless I am mistaken, supplies for at least three months were shipped to you long ago by the 'Masbate.'" However, we will talk about those details later. Now as to the situation here and my plans for taking the field. Captain Todd has obtained what he thinks is good information to the effect that Antonio Anugar is at the burnt village of Concepcion near the head waters of the Oras River, and that Maslog is at the same place or not far from it. My tentative plan, therefore, is to move up the river with one company of regulars and three of scouts and attack Anugar in his stronghold. As you have just come from somewhere up there you may have additional news; so I have postponed making a decision until your return.

"I am sure Anugar's band is not on the Oras River, Sir," replied Cochrane as the General paused and nodded for him to speak.

"Give your reason for making such a positive statement," the General directed, bluntly.

"Because he attacked my stockade at San Ramon just nine days ago and after the

fight I buried an even hundred of his men. Some of the rest are wounded and all of them are dispersed. Anugar himself probably escaped as he was not among the dead I found," was the response.

The silence which followed was broken by Captain Todd who remarked with a sneering implication that was lost upon all save the Constabulary officer.

"Evidently Mr. Cochrane, or rather Captain Cochrane, has not left much for the rest of us to do, unless we can locate Maslog, but perhaps he had done that also."

Cochrane flushed to the roots of his blonde hair but his gaze never left the General's face. "Yes sir, I have done that also," he said, when his commander glanced at him inquiringly. "At least I have a reliable guide who says he can take us there."

"Gentlemen, I think we had better let Cochrane have the floor," said the General. "He seems to know more about the actual situation than any of us. Now then, Captain, let's have your story."

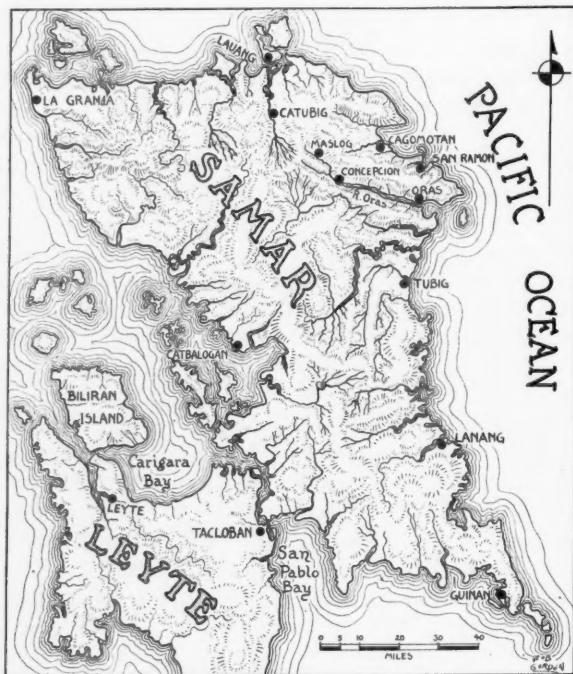
Thus enjoined, Cochrane told in a few words of the attack on his station, the capture of Feliciano, the trail made by the Pulajans and the boy's statement that he could find the way to Maslog either from San Ramon or by the way of the village farther up the coast.

When he had concluded there was another period of silence and he noticed that the General was looking at him with a puzzled expression on his face. "How was it, Cochrane, that you did not march to Maslog instead of coming this way?" he asked finally. "Understand me, my boy, I am not criticising your actions at all, but knowing you as I do I am at a loss to understand why,

with over a hundred good men in your company and the road to the place wide open after Anugar's defeat, you did not decide to go up there and take it."

Cochrane's face became almost crimson and he could hardly control his voice, so deeply were feelings wounded. "I think I told you, Sir," he said, "that I needed food for my men and came here to get it."

"But you had food, for I recall now that after Westover delivered your requisition for rations, I had supplies for three months sent to you immediately on the 'Masbate.'" The General's manner was not unkindly but there was a tinge of sternness in his tone and



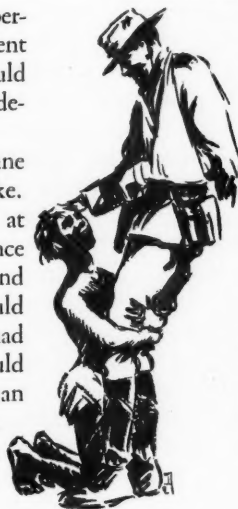
Samar.

this in the presence of the other officers flayed Cochrane to his soul.

"I did not get it. I got nothing; my men starved," was all he could say.

"Do you mean to tell me," the General persisted, "that you did not get the rations I sent you? But you must have done so or you could not have existed for all this time on that deserted coast."

Forcing his emotion under control, Cochrane looked squarely at the General and spoke. "Nearly three months ago, I disembarked at San Ramon with rations for ten days. Since that day not one pound of rations has come and my men have had to live on what we could find. I would have marched to Maslog had they been able to do it, but I knew they could not. They are more like living skeletons than men, as you will see when you look at them. If the boy I captured told the truth there is a ship on the reefs to the north of San Ramon. It may be the *Masbate*."



Feliciano.

The General strode across the room and put his arm around Cochrane's shoulders. "Gentlemen," he said turning to the other officers, "I am not going to try to apologize to Captain Cochrane, because I can't. He and I are going out to the ship, for we have some matters to discuss. I hope to see you all at dinner on board this evening. Come now, young man, let's see what Westover has for luncheon."

The Commanding Officer of the *Basilan* was both astonished and delighted when Cochrane appeared. He demonstrated his pleasure at the reunion by various attentions and gifts, of which perhaps the most highly appreciated was a box of fine cigars sent to the Captain's stateroom after lunch with the compliments of the donor.

The conference held during the afternoon with the General cleared up various matters about which each had been in doubt or only partly informed. The General confirmed the story told by Feliciano of the victories by which the Pulajans had come into possession of the rifles and ammunition, and the boy's statement regarding the vessel wrecked on the northeast coast was accepted as the explanation for the non-arrival of the *Masbate*. That ship had been under orders, after touching at San Ramon, to proceed directly to Manila for duty on the Luzon Coast, so its return to Catbalogan was not expected and consequently its disappearance had not become known at the local headquarters before the departure of the General.

The information given by Cochrane resulted in a material change in the plans for future operations, orders for which were given to the assembled officers that evening after dinner. Captain Todd, with a column composed of troops from Oras, was directed to proceed up the river to the head of navigation, and after reconnoitering the country to establish a camp at the burnt village of Concepcion.

Ballard's company of Scouts was to take station there with the mission of clearing the locality of Pulajans, and protecting the peaceably inclined inhabitants. The newly arrived Scout Companies commanded by Captains Nicklin and Cook, together with Cochrane's detachment, were to proceed to San Ramon, where an expedition against Maslog, to be commanded in person by the General, would be organized.

Two days later Cochrane's men, who under rest and good food, had made rapid recuperation, were embarked on the *Basilan* and the cutter sailed for San Ramon. Although Cochrane had felt but little uneasiness about the safety of the station during his absence, it was a relief when the steamer rounded the Mangrove Cape to see the flag flying from the Fort and the swarms of ragged soldiers crowding the parapets to welcome the arrival of the long-looked-for ship. Sergeant Bustos, however, was too old a soldier to be caught napping. He noticed the brigadier's flag hoisted on the cutter and made haste to form the company under arms. When the General and other officers

landed they found the little garrison paraded and as the party approached, rifles were snapped to the "present" and the prescribed flourish was sounded by the musicians, with the precision and formality of a command of Regulars. The General spoke a few complimentary words to the First Sergeant which made that veteran swell with pride; then he walked down the line, looking curiously as he passed, at the hunger-ravaged features of the men. He was visibly affected when at the conclusion of the inspection he asked Cochrane to express his thanks and appreciation to the men for the soldierly qualities they had displayed and to inform them that he was proud of them.

Meanwhile the supplies of food and clothing brought by the cutter were being unloaded. An issue of cigarettes was made at once to assuage the men's impatience while the cooks were busy with the preparation of an abundant meal.

The visiting officers were keenly interested in the Fort and its accessories. Hazzard's sketch of the locality and the inscription on the grave of the hundred Pulajans also received attention and praise. During Cochrane's absence the First Sergeant had found and buried thirty-one additional corpses that were polluting the air in the vicinity of the station. He had likewise discovered the hiding places in the jungle of six of the original inhabitants of the village and had induced them to return with their families and start rebuilding their homes. Hazzard, although weak, was now able to move about, and at his own request was detailed to supervise the issue of clothing and shoes to the almost naked Macabebes. A liberal supply of soap was included in the issue and a bath and change of clothing contributed as much as did the good food to the rehabilitation of the men. Feliciano and Spot showed

their joy at the Captain's return by remaining constantly at his heels, or under his feet, the efforts of boy and dog to win attention being ludicrously similar.

After the evening meal, Feliciano was interrogated at length. Notwithstanding his awe of the General he answered intelligently, reiterating his former statement regarding the wrecked vessel and asserting his ability to find a way to Maslog either by the land route or from the village on the coast.

In the detailed description that he gave of life among the Pulajans, he referred more than once to the torture and killing of prisoners by boys of his own age. When pressed on this point he admitted that he himself had officiated as "*verdugo*" on several occasions, adding naively that ordinarily it was not at all difficult as the prisoners, being tied to a stake, could not move hand or foot and always stopped squirming soon after the dagger was driven in at the place where he was told to strike. Once it had been a little hard, he said, when the victim was a woman whose cries and struggles made him think of his mother at the time when the Pulajans killed her. When questioned as to the motive of the Pulajan leaders in compelling children to act as executioners, he replied that the Chief thought this would make the boys bloodthirsty and fearless in battle. He had never seen "Papa Pablo," nor was even Anugar admitted to the presence of the so-called Pope, whose actions were always shrouded in mystery. His story was exceedingly interesting for he was gifted with unusually keen powers of observation and was anxious to please his new friends by relating all he knew of the Pulajans.

As a result of Feliciano's disclosures, the General decided to move the two Scout companies, each of which numbered over 100, and 80 men of Cochrane's company, by boat to Cagamotan, the burnt village on the coast to the north, and with the boy as a guide, to march from that place against Maslog. Hazzard was directed to remain at San Ramon with the mission of finding the villagers yet in hiding and persuading them to rebuild their homes. He was authorized to give the natives who had already returned enough rice for temporary needs and to use them as emissaries for locating and bringing in the others.

There was a commotion in Cochrane's company the next morning when the news was circulated that the Captain would leave that afternoon on another expedition and only 80 of the 143 men were to accompany him. Every man clamored for the privilege of going. The men who had remained at the Fort during his last absence maintained that it was now their turn, while those who had gone with him claimed the right to go again as a recompense for the hardships already endured. First Sergeant Bustos was unable to quiet the disturbance as the rival claimants finally demanded permission to present the case to the Captain, access to whom, by an iron-bound rule in the company, was never refused. Cochrane decided the question the only way it could have been de-

cided properly—in view of the peculiar psychology of the Macabebes—that is, by lot, the obviously unfit men of course being eliminated by order. Spot decided the question of his going by stowing himself away in one of the row boats and appearing on board the ship at the moment of departure, this to the delight of his associate, Feliciano.

Westover got the *Basilan* clear of the reefs before dusk, and running well out to sea, made his northing during the night at half speed. At daybreak he sheered in towards the coast and by eight o'clock had brought the cutter to anchor in the shallow harbor about half a mile from shore. The wreck reported by Feliciano could be seen on a reef to the north. Westover identified it as the *Masbate* so the mystery of that ship's failure to arrive at San Ramon was ended. Of the fate of its crew, however, there was only conjecture. A visit to the wreck no doubt would throw some light on this question but this undertaking was postponed until the return from the expedition on land.

The troops were disembarked in the ship's boats, Cochrane's company, which was to lead the column, being sent ashore first with the mission of protecting the landing. No sooner had the disembarkation started than a *boudjon* growled out from on shore and the call was taken up and repeated, each time at a place farther inland, until its repetition died out in the distance. The landing, however, was not opposed. Well beaten paths winding about the place indicated that the locality was frequented by natives; probably the original inhabitants long since been driven into the ranks of the Pulajans.

Feliciano had no difficulty in finding the trail by which he had come from Maslog with the band that had attacked and burnt the village. The last boat load of men got ashore by noon and Cochrane's cooks served the midday meal to the entire command at the usual hour. Soon after it was finished the column was formed and moved out in single file. Feliciano led the way, with Cochrane next, then came eight Constabulary armed with repeating shotguns; next came the General, followed by the balance of the Constabulary. The two Scout companies brought up the rear. The order of march by no means conformed to the principle set forth in military text books but Cochrane insisted upon sharing the post of greatest danger with the little guide and the General likewise refused to take a less exposed position.

There was no doubt that there would be a fight, which meant that the column would be ambuscaded and then attacked by bolomen. The orders for such a contingency were that the men should rally by platoons and commence firing at will, the Pulajan riflemen to be ignored as a general rule and the fire to be concentrated on the bolomen. The trail was broad and well beaten with the "slick" appearance that heavy foot traffic gives to such a path in the tropics. It traversed a gently sloping coastal plain covered with alternate patches of jungle and *cogon* grass and occasionally it dipped to cross and recross a small

stream that flowed in a rocky bed between banks entirely hidden by masses of vegetation.

The air had ceased to vibrate from the rasping blasts of the warhorns and the jungle lay still and quiet under the fierce heat. Cochrane almost envied Feliciano as, clad only in his bright colored breechclout, he skipped after the gorgeous red and blue butterflies flapping lazily overhead, or dived into the foliage to explore the cool recesses of some hidden pool. Poising once, like a little golden cupid, on a boulder in midstream, he smilingly beckoned Cochrane to come on, and the contrast between his tiny figure and the fierce looking soldiers he was guiding brought to the officer's mind the line, "and a little child shall lead them."

As the column continued to advance and still no enemy was seen the strain on the men became greater. They knew they were marching into an ambushade and naturally there was a desire to meet the danger and get it over with. As Cochrane pushed on with unconsciously quickened pace he selected first one place and then another on the trail as the spot where the column would become the target for a volley, and each time as he prepared himself for the ordeal and it did not come the strain became more intense.

Two of the short hourly halts were made and nothing unusual had happened. Then the head of the column arrived at a place where the grass on each side was long and thick. This time the Captain had selected the next bend in the trail as the most likely place for the ambushade. As he walked towards it his thoughts wandered to the perforations made by the multiball ammunition in the stomach of the soldier mortally wounded at San Ramon. He did not expect to escape unscathed in the coming fight. Papa Pablo's warriors were instructed to try always to kill the white officers and as he towered above the Macabebes, wearing the gaudy red shoulder straps of the Constabulary, he was too conspicuous not to be singled out.

Such was his train of thought when the shrill blast of a whistle sounded almost at his ear and with a reaction entirely automatic, he whirled and fired into the face of a hideous red-garbed creature that rose up at his feet.

The discharge of the pumpgun synchronized with that of a volley loosed at point-blank range by a line of Pulajan riflemen until that moment completely hidden in the grass at the side of the trail. As the sheet of smoke and flame burst forth into the faces of the leading men, the Captain felt a blow as though he had been struck on the arm with a sledge-hammer and the shotgun dropped from his grasp. His left forearm had been shattered by a heavy soft-nosed bullet. The shock of the volley, delivered as it was at a range close enough to burn the clothing of the soldiers, would have appalled any but veteran troops. It was but the prelude, however, to worse danger, for while the Macabebes were trying to rally upon their fallen comrades, the long grass became alive with red-uniformed men who sprang from their places of concealment and charged

the column on both flanks. Only those who have survived a *bolo* rush are able to realize how strongly the bravest man is impelled in such a situation to flee from the terrible knives; no others can appreciate the discipline and strength of character that enabled the soldiers at this time steadfastly to face the onslaught of the fanatics.

The situation for the moment was critical. Cochrane was attacked by four big natives, each anxious to finish the white officer and gain possession of the coveted red and gold shoulder straps; half the men in the two leading squads were down, and those on their feet, including the General, were fighting hand to hand with an enemy outnumbering them many times over. Heavy firing in the rear indicated that the Scout companies were also engaged. The soldiers were strung out single file and there was not enough room on the trail for them to take the best formation for meeting the attack. The advantage lay, therefore, with the active and muscular bolomen, whose movements, until they sprang into the trail, were entirely concealed by the vegetation. Cochrane stopped three adversaries by emptying his revolver at them and Sergeant Alalay saved his life again by shooting the fourth. Being unable to reload either gun or revolver, he then seized a *bolo* and defended himself from other opponents with this weapon until the Sergeant rallied some men to protect him. Meanwhile the General upheld his reputation as one of the best wing shots in the army by neatly dispatching with a pumpgun three Pulajans in just a few seconds.

The situation was saved, however, by First Sergeant Bustos, who the moment the volley was fired, closed his men up and had them to face alternately to the right and left. This formation enabled him to beat off the waves of bolomen that attacked his platoon and they fell back leaving the ground strewn with their dead and wounded.

Seeing then that prompt action was necessary in order to save the officers and men to the front, he rallied his platoon in a half circle and advanced astride the trail, the men marching shoulder to shoulder and forcing a way through the grass. The Pulajan riflemen who yet stood their ground were taken in flank and killed almost to a man, while the bolomen, massing to make an end of the sorely pressed advance guard, were forced back before the living shield thus interposed by the splendid old sergeant. They were loth to give ground, however, and made several charges before they withdrew.

Cochrane's second platoon moved forward in a similar manner and combed the locality, dispersing various groups that were still lurking in the grass. The column was then assembled and a count made of the casualties, the wounded, of course, being given such treatment as was available. The main effort of the Pulajans had been directed against the head of the column, the attack upon the rear being more in the nature of a demonstration that was defeated by the well disciplined Scouts without loss to themselves.

Cochrane fainted from loss of blood shortly after the

First Sergeant's timely maneuver, but he came to immediately and asked first for a drink of water and then for a cigar. His wrist and hand were without feeling as the shattered nerve ends hung in strips, but the pain in his upper arm and shoulder was almost beyond endurance. He had been wounded in previous engagements both by *bolo* and bullets but never before had he suffered so greatly. There was no surgeon with the command so Captain Nicklin applied a tourniquet and bandaged the wound.

By unparalleled good fortune not a soldier was killed or mortally wounded. The initial volley caused a majority of the casualties. It was fired in the prone position, consequently the bullets went low and most of the wounded men were struck in the legs and feet. It was due to this lucky chance and to the promptness with which the soldiers rallied that the command escaped with such slight losses.

Cochrane was in torment from the pain of his shattered arm; and he was very weak, but he objected so strongly to being sent back to the cutter with the other wounded that the General permitted him to remain with the column.

The less seriously injured Pulajans either made their escape by crawling into the jungle or were shot while attempting to do so. Those unable to move were given a rough and ready first aid and left as they lay, their removal to the ship being deferred until the return. The generous treatment accorded by order of the General probably surprised them, but not one could be induced to give any information whatever.

Feliciano had taken to cover like a young partridge when the first whistle blast was sounded, and had not reappeared. Some of the Macabebes were of the opinion that after having purposely led them into the ambushade, he had rejoined the Pulajans. Cochrane had more faith in his affection and gratitude, but when he failed to return in response to repeated calls, the advance was resumed without him, the Captain leading the way with a naked *bolo*, taken from one of the men he had killed, in his hand.

Several months later when asked to describe this journey, he replied that the pain, thirst, heat and loss of blood so affected his mind that he had no connected recollection of what happened. He did recall, however, that Alalay followed continually at his heels, helping him to keep on the trail and to avoid the cunningly hidden pitfalls and spear traps that were found more frequently the nearer the stronghold was approached. He said also that the remnant of the band they had defeated fell back before them, and that when they reached Maslog found it abandoned and in flames.

On the way back to the coast he fainted again and again, and his arm was by then badly infected; nevertheless he refused to be carried. When the column repassed the scene of the ambushade he called Feliciano, and to his surprise there was an answering cry and the little boy darted from the grass to fall at his feet and clasp his knees, squealing all the while with joy. Feliciano's story was that when he heard the whistle he knew what it meant and for fear of being caught by the Pulajans he ran far into the jungle. When the noise of the firing ceased he crept back to find that his friends were gone. He resolved then to hide near the trail and await their return. This he did, remaining there in the grass without food or water for nearly two days and nights.

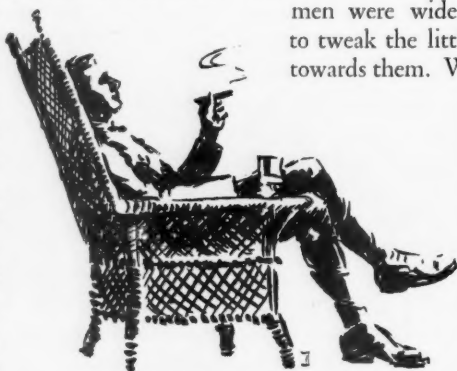
When all were safely reëmbarked, the cutter sailed for Lauang, stopping at the wreck of the *Masbate* only long enough to ascertain that ship and cargo were a total loss and that the crew had taken to the boats, carrying with them their arms and ammunition.

It was over a month before Cochrane was pronounced fit for duty and authorized to rejoin the Company which in the meantime had been transferred from San Ramon to a station on the north coast only a few hours distant by boat from Lauang. The General had long since sailed for Manila, taking with him Feliciano, whom he proposed to have educated as a ward of the Philippine Government.

Cochrane arrived at the new station at sunset. The sentries had recognized Spot at a distance and as the boat drew near the shore he found Hazzard and the men at the landing place to welcome him. There was no cheering; the Macabebes simply gathered around with shining eyes and grinned at their Captain while they waited for the mention by name and the word or two of greeting which he had for each man. The company was quartered in the deserted convent and dinner was spread that night in handsome style on an immense table of red hardwood.

After dinner the two officers took their ease in great cane-bottomed armchairs, designed no doubt by some fat old *fraile* who loved comfort. Alalay brought in a tray on which were whiskey and *Tansan* and a box of the fragrant Manila cigars dispensed at the commissary in Lauang. Spot lay curled at his master's feet. The massive doors between the officers' quarters and the dormitory of the men were wide open, and as he leaned forward to tweak the little dog's ear, he happened to glance towards them. What he saw in the half circle of light

cast by the lamps was the men of the Company, sitting on their heels in the semi-darkness, with their eyes fixed on him as though he were an idol to be worshipped. He pretended not to see them and leaned back, stretching out his long legs luxuriously. Then he looked over at the Lieutenant and said with one of his rare smiles, "It's good to be home again."



It's good to be home.

The Collapse of the Old Russian Army

By A. M. NIKOLAIEFF

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IT IS COMMON knowledge that the street riots in Petrograd in March, 1917, with which the Russian revolution began, were started by striking workmen and the troops of the Petrograd garrison which joined the workmen on the fifth day. It is known equally well that, following that mutiny and the fall of the Imperial Government, the Russian army at the front, despite the efforts of the Revolutionary Government to improve its fighting capacity, disintegrated and refused to fight.

How did it come to pass that the garrison of the Imperial capital mutinied almost over night? Why, after the March events in Petrograd, in consequence of the measures and the policy of the Provisional Government, did the army at the front completely break down? Was there no way to save the army, and thus prevent Russia from ending her part in the War and abandoning her Allies at a critical moment?

These questions are not merely of historic and academic interest, inasmuch as they touch upon an important problem, much discussed by military experts after the War: whether, under certain conditions, the tendency to increase the numerical strength of the army in time of war should not be limited by the principle that a less numerous professional armed force is a better instrument of war for self-protection than millions of untrained men called out during the period of hostilities.

Prior to answering these questions, it is necessary to point to an important factor that was peculiar to Russia's internal life and which, since the latter part of the 19th century, had operated continuously. This was the destructive activity of revolutionary forces aiming at the overthrow by force and violence of the existing régime. No time could offer better opportunities for revolutionary propaganda than a time of war.

As far as the Russian army was concerned, the main effort of propaganda was aimed at that part of the population which, under the conditions of modern warfare, turns a peace-time army into a "nation in arms"; that is, at the millions of men called out in time of war to be trained in special units at the rear, the so-called depot battalions or battalion of replacement troops. "In the rear of the army," we read in a letter written by a revolutionary during the World War and intercepted by the censor (June, 1916), "the revolutionary mobilization shall take control of all the rear establishments, but primarily of the depot battalions."

As early as 1904-05, during the Russo-Japanese War, it became obvious what importance was attached by the revolutionaries to the spreading of propaganda among the replacement battalions, with a view to "turning the imperialistic war into a civil war." But in that war, the number of men in those battalions was not large.

"A less numerous professional army is a better instrument of war than millions of untrained men called out during periods of hostilities."

During the World War the situation was different. The number of men in the depot units was enormous. According to the annual report of the Russian Minister of War, on December 31, 1916, the number of men undergoing training in the units at the rear was more than 2,170,000. This, by itself, was a whole "army of the rear" behind the army at the front.

In that period of the War, the men who formed "the army of the rear" fell into two categories. One category, the smaller, consisted of recruits called out at the end of May, 1916, 908,000 recruits having been drafted at that time. Another category, the larger, consisted of militiamen (*opolchenie*) who had been called out to the number of 1,310,000 from September to the end of that year. The age of these militiamen, belonging to the second class, was from 24 to 43 years, and they had received no previous training. The trained men of that category belonged to the first class which was summoned during July of the first year of the War.¹

The depot units, whose purpose it was to make good the losses of the army at the front, did not exist at all in time of peace. As soon as war was declared, these units were formed in the proportion of one battalion to every infantry regiment; only ten professional officers and a few score trained soldiers were assigned to each depot battalion to serve as its *cadre*. In the World War, first, because of the necessity of keeping a large number of men constantly ready to fill up the ranks of the army in the field, and secondly, because of the shortage of officers and trained soldiers, the numerical strength of the individual replacement units and their subdivisions had greatly increased. Companies in the depot battalions stationed in Petrograd numbered as many as fifteen hundred men each, and some had only two officers, whereas the strength of a company at the front was two hundred and fifteen men and three officers. Of no small importance, also, was the fact that the officers in the replacement units had been assigned for duty at the rear because of wounds, injuries, or poor health. Officers in those units who were physically fit, formed the exception.

At Petrograd were stationed the replacement units of nearly all the regiments of the Imperial Guard. With the

¹The men who had received military training in time of peace and formed the category of trained reserves, a total of 3,515,000 (of whom 3,115,000 were reservists and 400,000 militiamen, first class) were called out during the mobilization to fill up the units of the standing army and to build up new formations.

exception of two Cossack regiments (about 1,200 horsemen) and small units of artillery and engineers, the garrison of the capital, numbering from 150,000 to 160,000, was made up of men who for the greater part belonged to the older-age groups, who, from the military standpoint, represented raw untrained material under the nominal control of an entirely inadequate number of officers. Furthermore, part of the garrison included men evacuated from the front because they had been found unfit.

Every depot battalion bore the same name as that regiment at the front to which it was sending reinforcements. Thus the replacement units in Petrograd were called depot battalions of the Guard regiments, Preobrazhensky, Pavlovsky, Volynsky, etc.,—in other words, the regiments of the three infantry divisions of the Imperial Guard. Attention is drawn to this detail because of the fact that, as a rule, non-military writers, as they describe the revolutionary events in the capital during March, 1917, call the depot battalions that played such an important part in those events, by the names of the regiments for which they were training reinforcements. In these descriptions we read that "the Pavlovsky regiment" mutinied in March, or that "the whole Preobrazhensky regiment [was] marching down the street . . . without a single officer." Thus, anyone who is not familiar with the details of military organization gets the impression that the mutiny occurred, not among the men of the depots undergoing training to serve as reinforcements, but among the crack regiments of the Imperial Guard, which formed the cream of the Russian army. The truth, however, is that those regiments were at the front and did not take any part in the March events.

Despite the prevailing opinion, the fate of the Russian Empire on March 12 (February 27, Russian Calendar) was decided in Petrograd, not by the fact that the regiments of the Imperial Guard had joined the revolutionary workmen, but because the workmen had been joined by the recently drafted, untrained contingents of the depot units of those regiments. Special emphasis is laid on that feature, because a mutiny of the Imperial Guard would have meant that the discipline of the Russian Army had been completely destroyed before the revolution. No such situation existed. According to the testimony of the army leaders (Brussiloff and Denikine), the Russian army in the field at the beginning of 1917 (before the revolution), in spite of its defects, presented an "imposing force" capable of carrying on an offensive successfully. The army joined the revolution not as a mutinous act but after its leaders had recognized and accepted the political change.

Petrograd with its suburbs, while it presented a large concentration area of depot units in the rear, was at the same time an industrial center of the greatest importance. The number of workmen employed in all the factories of the Petrograd district was not below 250,000. What the mood and attitude of the factory workers toward the Government was, may be judged from the number of strikes,

economic and political, and from the number of strikers. The number of strikers, which in the initial period of the War (the second half of 1914) had fallen to the insignificant figure of 35,000 persons (in 68 strikes for the whole country), gradually rose during the War, until in 1916 it reached 1,080,000 persons in 1,410 strikes.

Regardless of the nature of the workers' discontent in time of war and its causes, the important fact may not be left out of consideration that the workers, including women and those under age, constituted less than 13 3/4 per cent of the total population of Russia. Furthermore, the only class of the population which revolutionary propaganda, in the period immediately preceding the war, had affected was the industrial workers, many of whom belonged to the revolutionary parties. When we consider the concentration in the Petrograd area of more than 250,000 workmen and about 150,000 depot troops we realize that the conditions for revolutionary propaganda were exceptionally favorable.

The main reason for concentrating so many replacement units in the capital of the Empire lay in the fact that, inasmuch as in time of peace nearly all the Imperial Guard had been stationed in Petrograd and its district, the many accommodations of that area offered an easy solution of the question of quartering newly summoned men; however, under the peculiar circumstances of war time, such a solution testified to an amazing lack of comprehension of the situation and a want of foresight on the part of the authorities. They knew well that no efforts were being spared by the revolutionaries to imbue the depot battalions with propaganda; and they ought to have known that the men in those battalions, recently gathered together from all over the country, placed under the nominal control of a few officers and not welded together either by discipline or a spirit of comradeship, might, under the influence of that propaganda, be easily won over to the side of the workmen.

The swiftness with which the mutiny which started in one of the depot battalions, spread among all of them, may serve as the best proof to what extent the ground for a mutiny had been prepared. These were the events that took place in Petrograd during the five days of March, 1917, during which the fate of the Empire was decided:

On Thursday, March 8, a number of workmen in Petrograd went on strike because of a shortage of bread in the capital. Street demonstrations occurred on that and on the next day, during which policemen dispersing the crowd were beaten. On March 10 the street demonstrations became political in character; red flags with revolutionary slogans made their appearance in the crowd on the Nevsky Prospekt, the main thoroughfare. On that day a police captain on duty in the Znamensky square was killed and a hand grenade was thrown at a platoon of gendarmes. In the evening, shots were fired at a troop of the 9th cavalry reserve regiment which had been sent to disperse the crowd on the Nevsky; the cavalrymen, of whom one was wounded, dismounted and opened fire,

killing three and wounding nine men in the crowd. On the afternoon of March 11 the first case of military mutiny took place: the fourth company of the depot battalion of the Pavlovsky regiment walked out of the barracks armed, gathered on the street, and fired shots at the mounted police. This was their form of protest against orders to fire at the crowd. On the fifth day, Monday, March 12, the depot battalion of the Volynsky regiment mutinied; the men walked out of the barracks and refused to give up their rifles. Soon they were joined by parts of the depot battalions of the Preobrazhensky and Litovsky regiments. An armed crowd of mutinous reservists, accompanied by a crowd of workmen who had immediately joined the soldiers, was now moving down the Kirochnaya street and setting government buildings on fire—the barracks of the gendarmes' squadron, the military engineers' school, and the district law court. The military mutiny that started on the previous day in one company now spread through the depot battalions belonging to the three infantry divisions of the Imperial Guard. From that time on the capital was in the hands of an armed crowd.

The question arises: Was it not possible to put an end promptly to the street demonstrations begun by the workmen and so to forestall the mutiny of the depot troops?

As one reads the testimony given before the Special Commission of Inquiry of the Provisional Government by General Khabaloff, commander-in-chief of troops in the Petrograd area, no conclusion is likely to be reached other than that, owing to the failure to supply the striking workmen with bread from the army stores immediately² and other causes, the situation, as far as the Imperial Government was concerned, was hopeless.

One of these causes lay in the fact that not a single infantry unit of regular troops was at the disposal of the military authorities in Petrograd. Only with the help of such troops could order have been promptly restored and maintained.

But even regular troops, had such been available in Petrograd, would have been of little use in putting a quick end to the street excesses unless at their head there had been a man of strong will and energy. In circumstances calling for decisive measures, General Khabaloff acted with neither energy nor determination.

Finally, aside from the need of reliable troops headed by a resolute commander, the quick suppression of street excesses depended primarily upon the mood and attitude of the population of Petrograd. Lack of sympathy on the part of the residents of the capital for the demonstrations of the workers would have greatly facilitated the effective reestablishment of order by the troops, if only for the reason that the man in the street would have kept away from those demonstrations. In reality, a very different state of things existed. The population was in a state of dis-

content and depression, in which every revolutionary manifestation, far from meeting with disapproval, was regarded by a great many as the beginning of a change for the better. That such a mood was the result of a number of serious causes is well known.

No small part in creating psychological depression was due to various rumors, which sowed alarm and undermined the hope of success (such as the rumors about the unreliability of the Allies and the sympathy of the Empress for the Germans). In spreading such rumors, the revolutionaries marched hand in hand with the Germans, who made extensive use of that method of fighting their enemy.

An event of such a catastrophic nature as the rebellion in the capital of the country of hundreds of thousands of men, half of them armed, in the midst of a great war, had as its inevitable result the disarrangement of normal life and the creation of chaotic conditions, not only in the capital, but in the entire country as well. The effects were felt first by the army at the front, for in 1917 the Russian army, numbering 7,000,000 men, had turned over the effectives of its infantry regiments several times (in some regiments as much as ten times). It represented, to a greater degree than any army in any epoch, those "armed masses," in which quality had been sacrificed for quantity.

Of the possibility of disintegration, with which those armed masses were threatened following the crash of the monarchy, the new government was well aware. But the measures by which that government was endeavoring to prevent disintegration and to save the situation showed that it had no knowledge of the fundamental principles of army organization. It failed to grasp the full meaning of the change brought about by the revolution. On one hand the new government, by its orders and efforts to "democratize" the army, was undermining the authority of the commanding personnel and destroying discipline³; on the other, it was preparing an offensive which only a well disciplined army could carry out.

Preparations for an offensive were made with a view to fulfilling a plan adopted before the revolution. Russia's obligations, according to that plan, which had been worked out in common with the Allies at the conferences in Chantilly in November, 1916, and in Petrograd in February, 1917, required that the Russian army should make a decisive attack not later than three weeks after the beginning of an offensive by the Allies. That offensive it had been planned to start in the beginning of the year but later on it was postponed until May. Now, as a consequence of the events in Petrograd and their influence on the army, not even in May could an offensive have

²Of the measures adopted for the purpose of "democratization," but in fact leading to the destruction of discipline, the following may serve as typical examples: the C.O. of every unit, according to the new order of things, had to share his authority and responsibility with an elected committee of soldiers and officers and with a civilian commissar, whose secret duty it was to watch over the political conduct of the C.O.; courts martial were suspended and the right of the commanders to inflict disciplinary punishments was abolished.

³Judging from a report of the Chief of the Supply Service, it would have been possible to spare for this purpose from 800 to 1,000 puds on the first and second days, and from 3,000 to 5,000 puds on each of the following days. One pud is equal to 36 English pounds.

been undertaken. At a conference held in Petrograd on May 17 by the commanders of the several groups of armies, members of the Provisional Government, and representatives of the Soviet Workers' and Soldiers' Deputies, the following statement was made by General Alexei-eff, the Commander-in-Chief who had succeeded the Emperor in that post after the latter's abdication: "The army is on the brink of ruin. One step more, and it will be thrown into an abyss into which it will drag Russia and her liberties, and there will be no way to save it."

It seems obvious that, with an army in which there was no discipline and which was "on the brink of ruin," an offensive was out of the question. Yet that offensive was undertaken. It was launched by the three armies (11th, 7th and 8th) of the Southwestern Front, and it had for its object the invasion of Eastern Galicia. It began on July 1 and made some progress but, after two weeks, it died down. Six days later the armies started to fall back, though no orders to do so had been given and their retreat soon turned into a flight. The details of that ill-fated offensive are as convincing as they are tragic.

A month and a half later the German operation against Riga showed that the Russian army was incapable, not only of offensive, but even of defensive, action.

In point of fact, not only by autumn 1917, that is, on the eve of the seizure of power by the Bolsheviks, but even as early as that summer, the Russian army was practically non-existent. In place of it, there were millions of men, armed and getting army rations, making up military units of various names and occupying a front line one thousand miles long, from the Baltic to the Black Sea, but absolutely incapable either of making an attack or of putting up a defense. The hope of the Provisional Government of continuing the war against Germany and Austria with the Allies fell through.

Was it not possible to devise some other means that would have offered a better chance to attain the desired results?

The Provisional Government from the very beginning of its existence was confronted by a dilemma. It had to choose between undertaking the offensive in accordance with the plan worked out with the Allies and, by so doing, to run the risk of completely destroying the army; and explaining to the Allies that it must abandon that plan with a view to saving the army. Of these two possible decisions, unquestionable preference, it would appear, should have been given to the one that contained the possibility of preserving the army and of continuing the war. Such a decision was not only to the interest of Russia, but to the interest of the Allies as well.

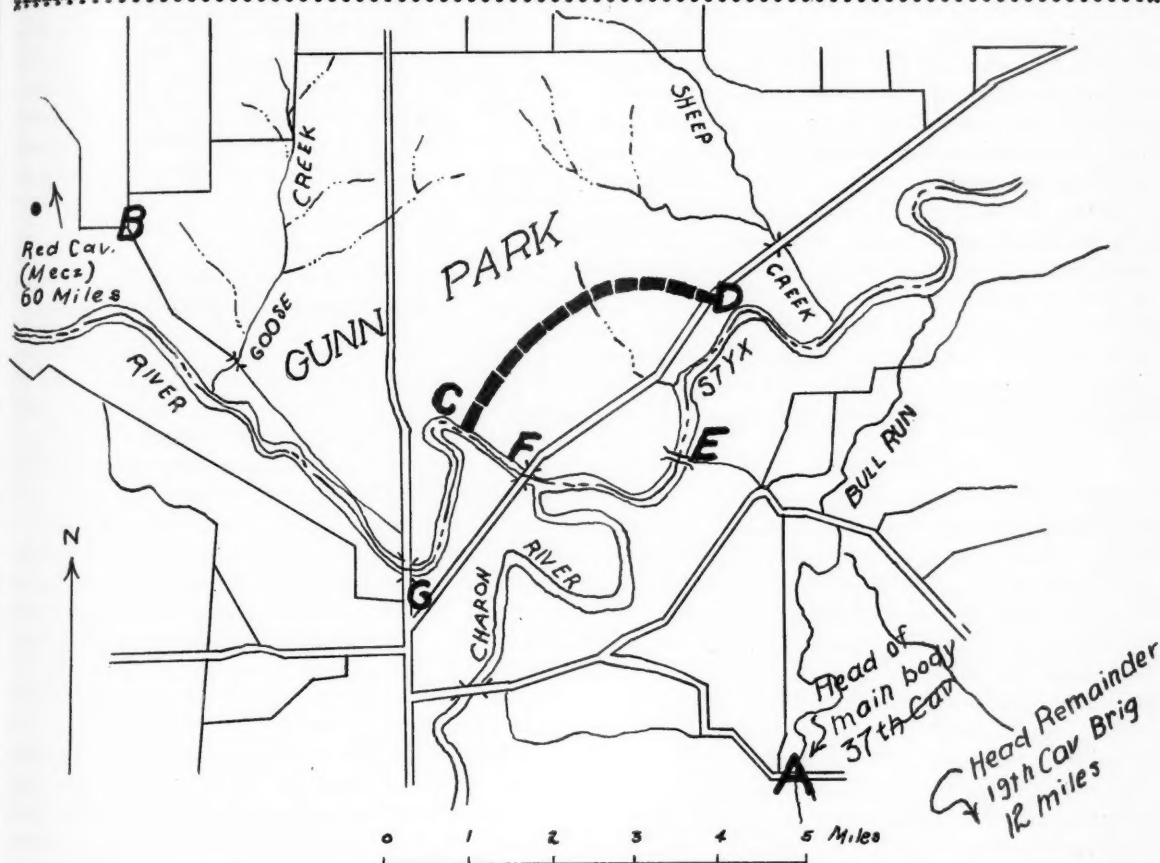
It would seem that the cutting down to a minimum of the numerical strength of the army with the object of preserving it was the measure that needed to be taken before anything else was done. To what minimum the strength of the army should have been reduced depended on the number of the *cadres* or professional elements, and on the young contingents, summoned in the course of 1915

(2,237,000 recruits were called out from January 15 to August 7, 1915) that still remained, and on the degree of reliability of individual units.

According to a statement of General Brusiloff at the May conference already mentioned, there remained in the units of the 10 cavalry corps 50 per cent of their *cadres*. The status of the artillery and engineers was the same. As to the main body of the army, the infantry, there remained in the companies an average of from three to ten soldiers of the standing army. These figures, of course, are a minimum. However, should we assume that in the 2,962 infantry battalions of the army, there remained in each company an average of five veterans of the 1914-1915 campaigns, including soldiers of the peace-time army, and 25 young men summoned in the course of 1915, an infantry force of 360,000, possibly of 400,000 men, might have been built up. By adding to these the cavalry units (about 80,000 men) and other arms of service, an army of a half million men might have been created. From all the officers of high and low rank it would have been possible to give that army excellent leadership. Far from resembling an unstable militia, that army would have presented a reliable force.

In considering the task which it would have been possible to assign to a "professional" army, it should be clearly understood that, by no means, would the scattering of that army along an extended front line have served any good purpose. The only task which the new army would have been in a position to accomplish was the protection of the political center of the country. Under the conditions that existed in Russia in 1917, the political center of the country should have been transferred from Petrograd to Moscow. In the emergency through which the country was then living, only by extraordinary measures such as this would it have been possible to save the situation. It may be said that, in case the army had taken up positions only on the roads leading to Moscow, (approximately on the line Pskov-Smolensk) it would have been possible for the enemy to occupy Petrograd and also to advance far into the interior along the lines to the south of those leading to Moscow. But in this connection it must be pointed out that, by the summer of 1917, the front line, running from the Baltic Sea to the Black Sea, presented an unstable and insecure screen which no longer gave protection. Furthermore it was not improbable—indeed, it was to be expected—that, following the entry of the United States into the war, the enemy would be compelled to concentrate their main forces on the Western Front. Germany, already experiencing difficulties with regard to her man power, would hardly take the risk of penetrating deeply into the interior of Russia or of undertaking operations on a large scale in the East. In any case, it seems certain that, had there been a reliable Russian army even a half million strong, the German and Austro-Hungarian troops would not have taken the chance of invading nineteen Russian provinces as they did after the seizure of power by the Bolsheviks.

NOTES FROM THE CHIEF OF CAVALRY



What Would You Do?

LIEUTENANT GOODE-SKOUT of the newly formed scout car platoon of the 37th Cavalry (horse), was huddled up in the command car. War was declared today and his regiment, reinforced by one battery of field artillery, was marching well out in front of the remainder of the 19th Cavalry Brigade, which, in turn, was covering the advance of infantry. The infantry, he understood, was to cross the River Styx, the international boundary, at one or more of the three crossings shown in the sketch above, at about noon tomorrow.

"I have," he mused, "a three-section platoon. My first and second sections will habitually be used for tactical missions and the third section will probably be held out for command purposes. The second car of the third section, however, will also be available for tactical missions. I have two-way voice and key radio with the first car in each section. The second car has a receiver only. One hundred fifty pounds of TNT, with fuzes, fuze-lighters and caps, are in each car.—Right now the platoon, less command car, is patrolling the crossings of the River

Styx on this side in the vicinity of Gunn Park.—Radio is functioning 100 per cent."—And so on.

The column was stopping for its hourly halt at 9:00 A.M., approaching point "A" on the sketch above. He looked back. Major Hi V. Dude, the S 2-3, was signaling him to wait. Alongside, S 2-3 turned his horse over to his orderly and jumped on the running board.

"Goode-Skout, what is estimated to be a regiment of Red Cavalry, mechanized, is breaking camp about 60 miles to the northwest of 'B.' The Brigade Commander has directed the regiment to seize the southern part of Gunn Park to cover the crossing of the remainder of the brigade. The Colonel intends to occupy and defend the high ground north of the bridges 'E' and 'F' (indicating the line 'C'—'D' in the sketch above). Colonel Moe Billity wants your platoon to secure the bridges over the River Styx at once, remaining at them until relieved by mounted detachments, cover the occupation of the position and perform reconnaissance missions. What are you going to do?"

WHAT WOULD YOU DO?

For Solution, turn the page

Solution

"I will at once radio the first section to secure the bridge across the River Styx at 'E'; radio the third section, less command car, to secure the bridge over the Styx at 'F'; and radio the second section to cross the river at 'G', continue then via the highway to the north and reconnoiter the area between Goose Creek and Sheep Creek along the northern limits of Gunn Park, paying particular attention to the roads leading from the north and northwest. Continuous radio communication to the command car will be maintained.

"When the bridges at 'E' and 'F' are taken over by mounted detachments, I will concentrate on reconnaissance, sending one section to the northwest to gain and maintain contact with the mechanized regiment. To facilitate my mission and the regiment's mission, I request authority to destroy the bridge over Sheep Creek about a mile northeast of 'D' and to mine the bridge over Goose Creek about two miles southeast of 'B'.

Discussion

"Why? Well, Major, my cars are now along the river. By radio I can direct them to proceed at once to the bridges. One section to secure the bridge at 'E', which in my opinion becomes the important one in the brigade plan. The road net makes the bridge at 'F' of secondary importance at the moment, but the fact that it is in the bridgehead the brigade is to establish, indicates that it should be secured without delay. I have one car of the third section available for that mission. Reconnaissance is desired to the north and northwest. By moving a section over the bridge at 'G', I am assuring myself that the bridge is serviceable, am executing a reconnaissance on the flank, and moving in a direction in which reconnaissance is desired, particularly during the occupation of the regimental position.

"By looking over the terrain to the north of the position, Goose and Sheep Creeks are natural obstacles which protect our flanks to a degree against mechanization. By extending reconnaissance to the north—the two stream lines indicating high ground and observation—I would be covering the occupation of the position.

"I believe that it would be most favorable to our regiment to limit the route of entry by the enemy to a certain area or direction. The main highway from the northeast is a serious threat against our right flank. By destroying the bridge, the threat is practically eliminated. My cars are equipped to handle that—having in the section 300 pounds of TNT.

"The road leading southeast from 'B' is a secondary one. No doubt the bridge over Goose Creek is also a secondary one. By placing contact mines in it, the creek would become a formidable obstacle to the mechanized regiment, I recommend mining it, as a contact mine would destroy both bridge and vehicle. The mine can easily and quickly be laid by stretching some wire about knee high across it, and attaching by another wire a fuze

lighter, fuze, and a tetryl cap or two. A row of blocks laid across, concealed, and set off by induced detonation.

"Having limited the route of entry into our sector, I would then send a section on distant reconnaissance to gain and maintain contact with the enemy regiment.

"What about the bridge at 'G'? Chances are that the three cars operating along the northern edge of Gunn Park will be forced to retire and, in retiring, could effectively hold that bridge for some time. Each carries a caliber .50 and two caliber .30 machine guns, and a Thompson sub-machine gun." (Department of Tactics, The Cavalry School).

A Solution of the Vance Problem Presented on Page 26, July-August, 1934, Cavalry Journal

HAD Lieutenant A, of one of our platoons as at present constituted, with a .30 caliber light machine gun squad, been confronted with the situation which faced Lieutenant Roman's platoon at Vance on 7 August, 1914, I believe the following employment of the platoon would have been equally as successful:

Lieutenant A would order his machine gun squad to immediately take position east of the village with orders to open fire on the hostile squadron as soon as in position and with his platoon approaching as far as possible under cover of the ridge envelop the enemy left flank and rear, driving them towards the Semois River. The vedettes to furnish security from the south. Limit of pursuit: Semois River.

This plan has the advantage of subjecting the hostile cavalry to frontal fire from the direction of the village and also to subject them to fire from Vance when driven towards the Arlon Road. It gives time to the enveloping force to get in a position from which to launch its attack. It has the further advantage of surprise, because the hostile cavalry do not know what resistance it may expect to meet, their intentions probably being to attack Vance.

B. F. GRIFFIN,
Captain, Cav. Res.,
17th Cavalry (RAI)

Distribution of Remounts.

THE Remount Service started its purchase of Remounts for the Fiscal Year 1935 about August 15th, and reports that the horses purchased to date are all by Government stallions, are half-breds or better and are vastly superior to any purchases made in past years. All of the 1,000 horses to be purchased are for issue to the Cavalry. About 25% will be shipped out between October 1st and November 15th, and the remainder will be issued in the spring. Distribution is, of course, governed by existing shortages in Cavalry Regiments and even after the receipt of these 1,000 horses the Cavalry will be short from 500 to 600 horses prescribed by Temporary Tables of Distribution.

Present tentative plans for shipment to units are as follows:

2nd Cavalry,	100	12th Cavalry:	
3rd Cavalry:		Ft. Brown,	60
Ft. Myer	44	Ft. Ringgold,	22
Ft. Ethan Allen	22	66	82
4th Cavalry,	44	13th Cavalry,	88
5th Cavalry,	88	14th Cavalry.	
6th Cavalry	88	Ft. Des Moines,	44
7th Cavalry,	98	Ft. Sheridan,	22
8th Cavalry,	88	1st Brig. Hq.,	6
11th Cavalry,	100	2nd Brig. Hq.,	12

Readjustment of Pack Load

1. The trucks which have replaced the escort wagons in Cavalry units provide sufficient space and tonnage to carry the canteen roll and the grain ration which are now habitually carried on the horse. To relieve the horse of this load (from 15 to 20 lbs.) on the many marches made prior to contact with the enemy will conserve horse flesh, permit longer marches and prevent many sore backs. However, when the pack load is thus reduced, the items still remaining on the horse must be readjusted to balance the pack, and proper methods for carrying the canteen rolls in trucks and for quickly issuing them in camp or on the march must be devised and practiced.

2. Of course, there will be many occasions in war when the horse must carry the full pack as now prescribed, so training and marching with full pack must be kept up in peace time. However, all Cavalry units must learn to utilize the full capacity of their truck in every possible way to increase Cavalry mobility and to prevent wastage and exhaustion of mounts. Probably one solution may be the adoption of squad rolls, carried on trucks, for many items of the personal equipment now carried in pack.

Latitude Permitted by and the Intent of Forage Regulations A.R. 30-480

By Lieutenant C. L. Scott, Cavalry

HOW many officers of the mounted branches and how many Post Quartermasters thoroughly understand and put into effect the provisions and the intent of Army Regulations 30-480 for the administration of the forage ration are either *not* clearly understood or are frequently on these regulations as compared to those for enlisted men's mess?

Inquiry of a large number of officers on many occasions clearly shows that Army Regulations 30-480 for the forage ration are either *not* clearly understood or are frequently ignored. The results, therefore, are that horses and mules are not so well cared for as they should be with the available forage funds. The purpose of this article is to state a few facts leading up to the publication of the present forage ration, the basis for the ration and the *intent* of

Army Regulations 30-480, with the hope that any *misunderstanding* as to these regulations will be cleared up. *Indifference* as to proper use of the ration can only be cured with a "big stick."

During the fiscal years 1925 and 1926, all components of the forage ration were arbitrarily reduced 5% for mounted combat units and 10% for other animals by the War Department, in order to come within prescribed budgetary limits. This action resulted in unfavorable press comments and complaints from some Corps Areas. Inquiry developed certain facts as follows:

a. The grain ration, then 12 lbs. instead of the present 10 lbs. for riding horses, when reduced was generally sufficient, but the reduction in hay and straw resulted in hardship on all classes of animals.

b. The reduced ration during hard work and on field service was insufficient.

c. Large horses in the Artillery were more adversely affected by this enforced reduction than smaller horses in other units.

The War Department, therefore, directed The Quartermaster General to submit a study and the necessary recommendations for a new forage ration, and I was designated to prepare these data. In the study, I received much valuable assistance from the Chief of the Veterinary Corps, the Department of Agriculture forage experts and officers of long experience in the mounted branches.

Herewith are the facts leading up to the publication of AR 30-480. As a guide for the final solution of the problem, certain basic facts well known to all horsemen were accepted as guides. They are as follows:

a. The ration must be in proportion to the size and weight of the animals, and in general this is one pound of grain for one hundred pounds of weight, for *light work*.

b. The ration required by any particular horse or mule will also vary with the amount of work given it.

c. Some individuals require more forage than others, and horses generally require more grain than mules.

d. Weather conditions as well as work require variations in the total amount of the ration and in the various components of the ration. For example: in cold weather the animal requires more grain than in hot weather. In summer better results are secured by increasing the hay ration and decreasing the grain ration.

e. The work required of army animals would *throughout a yearly period* fall under the classification of *light work*.

Keeping these basic facts in mind, it is easy to see that the ration of grain for the riding horse whose average weight is one thousand pounds should be ten pounds of grain, and that regulations should not prescribe the exact amount that each horse should receive each day of the year, regardless of work, weather or individual requirement. In short, a good definition for the army ration for the one thousand pound class of horse would be "the

average daily amount of forage that would be required to feed a one thousand pound horse on average light work for a period of one year." For the army the foregoing facts and definition establish a unit of measure in order that the war Department may prepare estimates and secure sufficient funds from Congress to feed a number of riding horses a proper ration for their size and for the work required of them during a period of one year. This unit of measure in *no way* prescribes a *daily feed* regardless of the other considerations mentioned above, but it does fix the *average cost* of maintaining the army riding horse for a period of *one year*. Thus the *basis* for the forage ration was fixed, and *note* carefully that *flexibility* in its use throughout the *year* is a *primary* and *fundamental* requirement.

Having determined the basis for the ration, the next step was to publish regulations that would permit the proper administration of the same and properly convey the *intent* of the War Department on this highly important matter. The old regulations, in effect prior to 1927, required that at the *end of each month* any *unconsumed forage* on hand *would be taken up and deducted from future issues*. This requirement effectually prohibited any flexibility in feeding throughout the year or according to the work required of animals in different seasons of the year. It put the administration of the ration on a *monthly basis* instead of the *yearly basis* that it should be. The intent now of Army Regulations 30-480 is to carry the forage ration as an *open account to be drawn against and used during a fiscal year so as to keep army animals in the best possible condition*.

Let us now discuss Army Regulations 30-480 by paragraph and see if the wording thereof permits of carrying out all of the foregoing considerations and also further shows the intent of these regulations.

"1. *Specifications*.—Specifications for forage for the Army are prepared by the Quartermaster General in conformity with United States Government Master Specifications for Feeds and Forage.

"2. *Supervision by commanding officers*.—Post, camp, station, and organization commanders are directly responsible for the proper supervision of feeding and care of forage. Advantage will be taken of grazing wherever proper facilities exist and suitable measures will be taken to prevent waste, improper use of forage, and accumulations of excess forage in organization storerooms."

Supervision is clearly placed on all concerned down to and including the troop commander.

The provision of this paragraph prohibiting the accumulation of forage in organization storerooms was inserted to prevent the practice of drawing from the Quartermaster all forage unused at the end of the month in order to "beat" the requirements of Army Regulations in existence prior to 1927 that unconsumed forage be taken up at the end of each month. Such action results in forage actually not needed at the time being eaten up by rats in

the stable and otherwise lost, stolen and wasted. Drawing savings is not now necessary because paragraph 5 (see below) requires that "*Savings made at any time of the year will be added by the Quartermaster to the full ration allowance for the remainder of the fiscal year as such savings are available for extra issue*."

"3. *Forage rations*.—a. *CLASSES*.—Forage rations for horses and mules are divided into two classes, as follows:

- (1) *Garrison ration*.—The garrison ration will be issued at permanent posts or stations or in semi-permanent camps.
- (2) *Field ration*.—The field ration will be used when animals are actually in the field on march or maneuver and where stabling facilities can not be furnished.

"b. *DIVISION OF HORSES FOR RATIONING PURPOSES*.—For rationing purposes there are three distinct divisions of horses, depending upon their weight, as follows:

- (1) Small horses, issued to foreign stations.
- (2) Light horses, 1,150 pounds in weight and less.
- (3) Heavy horses, more than 1,150 pounds in weight.

"c. *ALLOWANCES; COMPONENTS*.—The following tabulation shows the allowances prescribed in each class of ration for each division of horses mentioned in b above and for mules:

	(1) <i>Garrison ration</i>			
	Small Horses Pounds	Light Horses Pounds	Heavy Horses Pounds	Mules Pounds
Grain	7	10	12½	8
Hay	14	14	15	14
Straw	5	5	5	4

	(2) <i>Field ration</i>			
	Small Horses Pounds	Light Horses Pounds	Heavy Horses Pounds	Mules Pounds
Grain	9	12	14	10
Hay	14	14	16	14

"d. *SUBSTITUTES AND EQUIVALENTS*.

- (1) Not to exceed 3 pounds of bran may be substituted for a like quantity of grain or one-half pound of linseed meal for 1 pound of grain.
- (2) The Quartermaster General is authorized, upon request of commanding officers, to vary the grain, hay, and bedding components of the forage ration and to purchase special classes of forage to meet special conditions, provided a saving can be effected thereby or the cost of the ration for the station concerned is not increased. Any variation contemplated will be provided for by timely requisitions on the proper supply agencies.
- (3) In foreign possessions the substitution of palay, copra meal, or any native products for the grain ration, and native grasses for hay, is authorized where a saving can be effected.
- (4) In the issue of forage 10 pounds of hay will be considered the equivalent of 15 pounds of corn fodder or grain sorghums.

- (5) After forage is delivered to posts, camps, and stations it must be issued as received."

Subparagraphs *a* (1) and (2) above take into consideration the facts that the horse and the mule must have a ration for "light work" in garrison and a larger ration for "hard work" in the field. This provision has seldom been taken advantage of because the transportation in the hands of troops has been insufficient to furnish the extra forage needed in the field. The result usually has been that the animals returning from field work are much lower in flesh than should be the case. Motorized field trains will make it possible in the future to give the hard worked animal in the field a "hard work ration" which can usually be provided from savings made during idle periods.

Paragraphs *b* and *c* cover the basic principle that forage must be fed in proportion to the weight of the animal.

Paragraph *d* (2) is a most important one. The War Department, The Quartermaster General, the Corps Area Commander and the Post Quartermaster are largely concerned with providing and expending the funds for foraging the horses and mules for the army and not with how much of each component of the ration is fed at stations or when it is fed. The latter are distinctly problems for the post and organization commanders. Of course, the funds appropriated by Congress cannot be exceeded by the War Department, and the Corps Area and Post Quartermasters must stay within their allotments. The real intent of this paragraph then is to permit substitutions and flexibility to organization commanders in the administration of the ration *without increased cost to the government* if such changes will keep animals in better condition. For example: say that Fort Meade has 1,000 riding horses to feed and the cost of the ration for one horse for the fiscal year 1934 at this place is \$90.00. This station then has \$90,000.00 coming to it to feed 1,000 horses for the year. If a \$10,000.00 reduction in grain and an increase in hay and bedding by this amount will, in the opinion of the organization and post commanders, produce better results, such a reduction is *not only permissible* under this paragraph *but specifically directed* by the wording: "Commanding officers are charged with using the forage ration in such a manner as to keep animals in the best possible condition and so as not to exceed the allowance." (See par. 4 A.R. 30-480 below.)

There are two provisions in Par. 3 *a* (2) that are of great importance. First the *cost of the ration cannot be increased* over the total amount appropriated for the fiscal year since no funds to pay for such increase are available. Secondly: "Any variation contemplated will be provided by timely requisition on the proper supply agencies." For example, the organizations at Fort Meade in the case cited above cannot expect to get a variation in its grain and hay components *without requesting it* and not then if the Post Quartermaster and other purchasing agencies have already *obligated* the available \$90,000.00 for fixed

amounts of oats, hay and straw. Changes in the ration at this late date would involve a violation of contracts with forage dealers and, of course, cannot be considered. "Timely requisition for variations," therefore, means figuring out *what amounts of the different components you want before your forage funds are obligated*. This is the proviso *that causes most of the trouble* in effecting variations in the ration. Organization Commanders can not fail to look ahead and then blame the Post Quartermaster because he can not violate a contract already in effect and which is only unsatisfactory because the officers feeding the horses *have displayed no interest or foresight until it was too late*. Paragraph 3 *d* (5): "After forage is delivered it must be issued as received" means just what it says. If Organization and Post Commanders allow their forage money money to *be spent* for what they do not want, it is then too late to cry over spilt milk.

"4. *Reduction and increase*.—Commanding officers are charged with using the forage ration prescribed for horses and mules in such a manner as to keep the animals in the best possible condition and so as not to exceed the allowance prescribed for the entire fiscal year. Reductions will be made in the grain component of the ration where little work is required of the animals. In case suitable grazing is available, both the grain and hay components will be reduced. For idle animals in good condition or sick animals in good flesh the grain component of the ration will be reduced fully 50 per cent. During periods of especially hard work the ration may be increased by savings already made or by anticipating savings that can be effected at a later period in the same fiscal year."

The intent of this paragraph was to allow Commanding Officers and Organization Commanders to study local conditions and seasonal training requirements and then administer the forage to best meet all situations. It specifically leaves the forage funds as an open account to be drawn against during the fiscal year as the situation requires. You can *overdraw* for hard work in the first quarter and make up this overdraft later in the fiscal year. Savings already made are always available for use until the end of the fiscal year. (See Par. 5 below.)

"5. *Issues*.—*a*. Forage will be issued monthly or at more frequent intervals if required.

"*b*. Quartermasters will show in their issue vouchers and monthly reports of issue the forage actually issued, which will include extra issues when ordered by commanding officers. In order to show properly on the Forage Report (W. D., Q. M. C. Form No. 38), under the heading "Required for remainder fiscal year plus 60 days," the amount of forage to be issued, extra issues over and above the regular ration will be deducted from the full ration allowance for the balance of the fiscal year, as such extra issues must be made up by savings effected at a later date. Savings made at any time of the year will be added to the full ration allowance for the remainder of the fiscal year, as such savings are available for extra issues. At the end

of the fiscal year all forage will be taken up as on hand and no savings will be carried from one fiscal year to another."

This paragraph provides the method of issue and the bookkeeping required of the Post Quartermaster, particularly for keeping track of savings or of over-issues when ordered. Note in the last sentence that accounts are closed at the end of the fiscal year and all savings are then taken up. If an organization has more forage than it can use for the period of one year, this is positive proof that the prescribed ration was *more than ample*. Since the ration will be the same for the next fiscal year, there is no need to draw out this surplus forage and then lose and waste it. Remember that as long as the army is on a budget what you *waste* in forage you pay for from other items that the army badly *needs*. Drawing forage not actually needed is, therefore, not beating the Quartermaster out of forage but probably beating *yourself* out of pay, ammunition or some other appropriation which had to be reduced to provide funds for forage.

As to paper work on forage in organizations, there is either no account of value kept or generally one so complicated that an expert accountant would be wholly lost in trying to interpret it. The following is all that is necessary in the troop:

a. A simple form for the stable sergeant to keep (see TR 360-5, Par. d 72). On this form is shown by day the number of animals on hand; forage received in sacks and bales with average weight thereof shown in remark column; the forage fed by sack and bale; and the balance on hand.

b. A forage account kept in a book by the troop commander showing by months what is due, amount drawn, consumed and balance on hand, as well as additions or deductions and conversions. This book should be similar in principle to the ration account for the enlisted men kept in the *troop fund book*.

The following form has proved most effective, simple and satisfactory:

FORAGE RATION ACCOUNT, TROOP F, 12TH CAVALRY
SEPTEMBER, 1934

Horses on hand, 20 Wt. over 1,150; 80 Wt. under 1,150.	Grain	Hay	Straw
Balance carried fwd., lbs.	10,000	0	0
Due in September	31,500	42,600	15,000
Total	41,500	42,600	15,000
Additions and deductions for September plus 100	plus 140	plus 50	
	41,600	42,740	15,050
Fed in September	30,000	42,740	15,050
*Balance to carry forward	11,600	0	0

Remarks: Of the above savings in grain, 5 tons of same (10,000 lbs.) will be converted in 2nd quarter to 8 tons

of hay. No additional cost involved as transaction is as follows:

Cost of oats \$32.00 per ton x 5 equals . . . \$160.00

Cost of hay \$20.00 per ton x 8 equals . . . \$160.00

*Corrected balance to carry forward: grain 1,600; hay (8 tons) 16,000.

This account checks with Q.M. account and is certified correct.

Signed: A. G.,

Captain, Comdg. Troop.

Many of us can remember the old general post mess for enlisted men. When it was first planned to establish the company mess to be run by the company commander, there was considerable opposition to it on the grounds that company commanders knew nothing about running a mess, would waste the ration and starve the men. Many thought the messes had better be left in the hands of a few post experts. Everyone now knows that the company mess is far superior to old post messes in every way, and that all junior officers know how to handle the ration and administer these company messes in an excellent manner in garrison and in the field.

In some ways the feeding of our animals prior to the publication of A.R. 30-480 was similar to the old post mess for enlisted men and still is in this condition where the troop commander is not allowed to, or fails to, take advantage of the latitude prescribed for the administration of the forage ration for his horses. His horses eat what they can get, and the amount and character of the ration is in no way controlled by him—the person who should be most interested.

Our enlisted men's ration is on a money basis, and these money accounts are always well kept and most carefully inspected by all available agencies. Forage is issued in kind, and although the money value is great, supervision, inspection and administration in far too many instances have become routine. The practice of tying horses out on the picket line in the freezing weather and in the blazing hot sun to relieve a lazy stable detail of work is not only cruelty to animals but is the quickest way known to nullify the effects of good forage and proper feeding.

Care for your horse under all conditions in the same manner that you care for yourself and your men, and you can't go wrong. Remember, too, that if the horse could talk and register a kick to the Commanding Officer or Inspector, we would often have a hard time explaining why we didn't look after him so well as we do for the human being who is capable of, and usually does, register a protest at unjust and careless treatment, particularly with reference to poor mess management. A.R. 30-480, as written and as intended, gives the authority and the necessary flexibility to Organization Commanders for administering the ration so that the horse and mule will derive the greatest benefit from the funds available for forage. Why should not everyone get out of the rut and take full advantage of these regulations?

BOOK REVIEWS

THE REBEL RAIDER. A life of John Hunt Morgan. By Howard Swiggett. The Bobbs Merrill Company, Indianapolis. \$3.50.

Mr. Swiggett, during his boyhood, learned to look upon John Hunt Morgan as a "glamorous figure." The tales that came to him of that dashing and impetuous Cavalry leader left him with the impression that Morgan was a hero. With this viewpoint Mr. Swiggett began an extensive study and research of Morgan's life. "The Rebel Raider" is the result of that study.

The author devotes but a few pages to the early life of his hero. In the confused allegiance which took possession of the people of Kentucky during the early days of the Civil War, Morgan and his brothers chose the side of the Confederacy. In this period of divided sentiments and loyalties the Lexington Rifles, a militia company which Morgan had founded in 1857, fled from Lexington to join Buckner's forces at Bowling Green. This Militia Company, recruited and expanded, became "Morgan's Cavalry," reckless, undisciplined and untrained. From the very beginning Morgan sought freedom of action for his command. Dashing and spectacular raids appealed to him. He soon became known throughout the South as a romantic and mysterious cavalryman.

It is a strange coincidence that Morgan's second marriage should correspond with the high tide of his career. After this event Morgan's path was beset with many reverses that eventually led to his destruction. Through suggestions and encouragement of President Jefferson Davis and C. C. Vallandigham, the northern sympathiser, Morgan became interested in the dreams and political ambitions of the Copperheads north of the Ohio River. Through reports of secret agents, he became convinced that, if a Confederate military force could establish itself north of the Ohio, the southern sympathisers there would promptly take up arms, seize their state governments and extend the Confederacy into the northwest. His foolhardy raid into Indiana and Ohio soon followed with its disastrous results. The author does not believe that Morgan escaped from the Ohio Penitentiary through a tunnel, and goes to some length to establish a different hypothesis. Returned to the Confederacy, Morgan assembled the remnants of his command and sought to regain his lost prestige. But he lacked vision, proper moral standards, and tactical knowledge. He countenanced many deplorable outrages on the part of his undisciplined troops. Dissension grew up within the remnants of his vanishing command. He lost confidence and respect of his best officers and men. On the early morning of September 3, 1864, he was surprised and shot to death at Greeneville, Tennessee, by Federal Cavalry.

The military student will find much of interest in the

book. Morgan displayed little knowledge of the proper tactical employment of Cavalry in the theater of war. It is difficult to understand why he never appreciated the value of tactical coöperation. He felt quite free to interpret the orders of his superiors to his own liking. Although he was repeatedly surprised, both in bivouac and on the march, he seems never to have realized the necessity for tactical security. On many occasions when his troops were critically in need of their commander, he was absent on some personal enterprise known only to himself. He was unable to coöperate his great desires for both power and love.

Mr. Swiggett has written a book of historical value. He has presented an unbiased and authentic account of Morgan's tragic life and his hard riding Cavalry which readers will enjoy.

FRED L. WALKER, Major, Infantry.

THE GHOST OF NAPOLEON. By Captain Liddell Hart. London, Faber and Faber, Limited. 1934. 7s 6d.

In this book Captain Hart renders a service of real value to every student of modern history by bringing out into the open and placing in their proper order works that have too long been hidden on the shelves of old libraries. Napoleon was such a student and it is ably shown in this treatise how he profited from his studies. It is the world's misfortune that succeeding generations had generals who, either through lack of industry or analytical ability, failed to understand the lessons of the past.

In his vivid style the author follows the trend of military thought from Maurice of Saxony to Marshal Foch, covering the development of two centuries. He dwells upon General Bonaparte's brilliant interpretation of Bourcet and Guibert, and upon the Emperor Napoleon's neglect of their teachings. But more important for us is the analysis of his interpreter, Karl von Clausewitz. This prophet's bloodstirring pronouncements obscure qualifying clauses that often contain truth; Napoleon I became the idol, not the skillful young general fresh from the school room; and military men of the twentieth century failed to read their texts carefully. Here is the tragedy; the men who were destined to lead the armies of Europe did not know their lessons. The result was disaster.

The last chapter is headed "Reflections," and forms a convenient synopsis of all that has been rushing through the reader's mind while his eyes traversed the preceding pages. For the book is provocative of much reflection. Evidently the author does not think it too much to ask of a nation's leaders, political as well as military, that they should be students of history in addition to being men of action. In the event that this ideal is impossible, he prefers men like Sherman who are able to rid them-

selves of doctrine and fall back upon common sense.

Captain Liddell Hart's books are always interesting and show the results of thoughtful study, but in recent works he has attained a literary style that enhances immensely the pleasure of reading him. It would be a great boon to any army if its general officers could be induced to read and appreciate his chapter on Clausewitz. A splendid bibliographical note is at the end.

JOHN M. ERWIN, Captain, O. D.

TIN SOLDIERS. By Robert Wohlforth. Alfred H. King, Inc., New York, 1934. \$2.00.

Reviewed for the Cavalry Journal by Lieutenant Colonel Herbert H. Frost (Colonel Frost is a Reserve Officer and is not a graduate of West Point).

The author of "Tin Soldiers" has evidently made a bid for a place in the radical ranks of so-called military writers, of whom John Dos Passos is the leader, by virtue of his "Three Soldiers." Wohlforth's bid is a weak one, and his "Tin Soldiers" so lacking in anything convincing that it leaves the normal reader with the feeling of having wasted his time. Were the book well written, it might be interesting to a certain class of readers who love literature of this kind.

It is hard to find an excuse for the author, much less a reason. Perhaps, he was told to expect a fortune from sales, or, on the other hand, something in his make-up just changed. Graduating from West Point in the Class of 1927, he contributed some of the best material in the 1928 "Howitzer." No one can read his writings in this edition of the U. S. M. A. year book without the conviction that his words came from the heart. Some experience as an Army Officer must have resulted in the turn of mind that brought forth "Tin Soldiers."

West Point is not perfect, but in its more than a century of existence, its ten thousand graduates have not only formed the backbone of our national security, but as a group, both in and out of the Army, have contributed in no small way to the progress and welfare of our community and national life. As to type and character, no educational institution in our country has produced a higher percentage of honorable men.

Few colleges in this country have been free of radical teachings, communistic clubs, parlor pink professors, and surrounding influences that tend to distort the point of view of youth. This unhealthy trend has failed to touch the United States Military Academy, and as might be expected, all un-American influences find no harbor, either with the faculty or the Corps of Cadets.

"Tin Soldiers" would have you believe otherwise; in fact, the author could have saved time and publishing costs by issuing a pamphlet, instead of a book, with a summary about as follows:

The average cadet comes from a lowly station in civil life; football material is not subjected to the rigors of plebe training; the first objective is to break the spirit and reduce the man to the level of a dumb brute; instructors

who are graduates are fat, yellow, brutal, and dumb; instructors who are not graduates are human; the average girl attending social affairs for cadets is little better than a street walker; surrounding towns are full of cadet love nests; many children are born of cadet fathers; sexual perversion is rampant in the cadet corps; negro cadets are always material for a "Scottsboro Case;" drinking among cadets is a common practice; old wives are hags; young wives spend their time in having love affairs with cadets; the cadet honor committee is dishonorable; suicide is the best way out; all instruction leads to naught; the faculty live in terror of mental mutiny and suicide epidemics; and, finally, after graduating, get out of the Army and try to rebuild the character you had before the four years of devastation.

The book may afford new ammunition to soap box orators, and Union Square will undoubtedly ring with quotations.

THE DEFENSE OF THE FORWARD SEAT. By Captain Vladimir Littauer and Captain Sergei Kournakoff. Reviewed by Edward Dickinson.

Of the three rules of jumping correctly, stated on page 116 of Captain Littauer and Captain Kournakoff's new book, "The Defense of the Forward Seat," applied to the three phases of jumping, six out of the nine times involved are they broken in "back seat riding," while in using the forward seat in all nine instances they are observed. This fact, alone, proved in the book justifies it.

Its authors were officers in the old imperial Russian cavalry. They have applied physical study, photography, to the matter of the forward seat. In their book these studies are carefully reported, the tables and diagrams presented. Throughout the book splendid photographs are offered. So minutely have they analyzed the subject that they have been able to present observations in comparative anatomy to show why. They have delved into ballistics. And in the end have given the erudite rider something worth while, something that takes away the old method of instruction that answers a question with "because I said so" and have replaced this with definite scientific reasons. They set out to defend the forward seat. It would be impossible to do it better.

THE HEROIC YEARS, Fourteen Years of the Republic, 1801-1815. By Fletcher Pratt. Harrison Smith and Robert Haas, New York, 1934. \$3.00.

The author is already known to CAVALRY JOURNAL readers through the following articles, which have appeared in these pages:

"Ancient Firearms," March-April, 1932; "The Cavalry of the Vikings," July-August, 1933; "The Siege of Malta," September-October, 1933; "Richard Mentor Johnson," May-June, 1934.

To an inquiring mind and a taste for accurate research, Fletcher Pratt adds the rare inspirational faculty of making history really interesting.

Recommended by the Book of the Month Club.

SPORTS

Mounted Activities of the 11th Cavalry

1. A very interesting and gratifying report has been submitted to the Chief of Cavalry's Office of the mounted activities in the 11th Cavalry during the past year. The following events are especially noteworthy:

a. New specifications for hunter trials. A certain group of civilian horsemen in California became interested in holding hunter trials on a system similar to the Olympic Three Day Event and such a system was adopted and has proven highly satisfactory at all hunter trials. In short, the hunter trials were divided into three phases which counted as follows: Training test—200, cross country—600, jumping—200, total—1000. This innovation proved extremely popular. Over 200 entries were secured at the Presidio of Monterey-Peninsula Horse Show, and all riders believe that the introduction of these changes in the hunter trials undoubtedly determine the best working hunter in a group of horses.

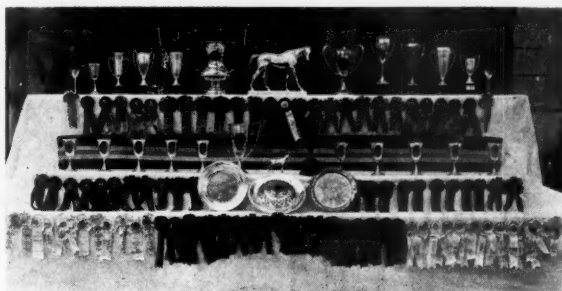
b. Officers' and noncommissioned officers' night rides. This class of rides was held at the Presidio of Monterey Horse Show. The officers' rides covered 44½ miles and took place in a driving rain, over hills, ill defined trails, ravines, and a wilderness of manzanita. Checking stations were used. No regulation of pace was given to contestants. A marked map was furnished to each rider 5 minutes prior to his time of starting. Captain Louis G. Gibney, 11th Cavalry, won this ride in 3 hours, 49 minutes.*

Noncommissioned officers' night rides were also laid over unknown courses and were run in about the same manner as the officers' rides.

The conditions of the animals and pace and gait maintained were checked and riders scored on the judgment they used in getting the most out of their horses without exhausting or injuring them.

2. At the Presidio of Monterey Horse Show, lists of events were varied so as to overlook or neglect no riders of any kind at the post. The classes included events for recruits, privates, noncommissioned officers, officers, civilians, ladies and children.

3. Our civilian horse shows and hunter trials in the United States, in the opinion of many horsemen, have



The Season's Trophies

become very stereotyped and uninteresting, both to spectators and progressive horsemen. Our specifications for horse shows do not require either the training for horses or riders that shows held in Europe do, where long and difficult course must be negotiated. The result is that the highest type of horses and riders for Olympic or International Events are not developed in this country as they should be. It is a great pleasure, therefore, to the Chief of Cavalry's Office to read of the progress that has been made in California by civilian horsemen working in co-operation with the 11th Cavalry and vice versa.

4. Movements at night by Cavalry and other combat arms, in order to avoid observation and attack from the air, will certainly become the rule rather than the exception in the next war. The night rides introduced by the 11th Cavalry not only provide novelty and increased interest in mounted events but are also of great military value in the training of officers and enlisted men.

5. The 11th Cavalry, in its mounted activities, has introduced an innovation and set a standard which might well be followed throughout the Army, in order to give the most valuable military training to officers and enlisted men, as well as to improve the horsemanship and horsemastership of both civilian and military riders.

Much of the success attained is to be credited to the Commanding Officer, Colonel Ralph M. Parker, and to the Captain of the Horse Show Team, 1st Lieutenant Paul G. Kendall.

The shows participated in and the results were as follows:

PRESIDIO OF MONTEREY HUNTER TRIALS

1st, 2nd and 3rd places, 1st Lieutenant Paul G. Kendall, 11th Cavalry, with *Red King*, *Young Bill*, and *Sonny Boy*.

4th place, 1st Lieutenant Thomas E. Lewis, 76th F. A., with *Crimson Runner*.

*Standing in order named:

Captain Louis G. Gibney, 11th Cav.;
 Captain Guy O. Kurtz, 76th F. A.;
 Captain J. S. Rodwell, 11th Cav.;
 1st Lieut. H. W. Davison, 11th Cav.;
 1st Lieut. Paul A. Rdge, 11th Cav.;
 1st Lieut. Joseph A. Michela, 11th Cav.;
 2nd Lieut. Clyde R. McBride, 76th F. A.;
 2nd Lieut. Theodore W. Parker, 76th F. A.;
 1st Lieut. Robert G. Lowe, 11th Cav.;
 1st Lieut. Newton F. McCurdy, 11th Cav.

FLINT RIDGE RIDING AND HUNT CLUB, PASADENA, CALIFORNIA

Hunter Trials: 1st place, Mrs. C. K. Darling, with *Felsentor*; 5th place, 1st Lieutenant T. E. Lewis, 76th F. A., with *Crimson Runner*.

SANTA BARBARA RIDING AND HUNT CLUB

Hunter Trials, Schooling Phase: 2nd and 3rd places, 1st Lieutenant Paul G. Kendall, 11th Cavalry, with *Det Lewis* and *Sleepy*; 4th place, 1st Lieutenant Robert G. Lowe, 11th Cavalry, with *Sonny Boy*. *Cross Country Phase*: 1st, Lieut. Lowe, with *Sonny Boy*; 2nd, Lieut. Kendall, with *Sleepy*; 3rd, Lieut. Powers, 76th F. A., with *Major Skagg*; 4th, Lieut. Michela, with *War Terror*. *Jumping Phase*: 1st, Lieut. Kendall, *Sleepy*; 2nd, Lieut. Powers, *Major Skagg*; 3rd, Lieut. Michela, *War Terror*; 4th, Lieut. Lowe, *Pinto*. *Final Standing, Hunter Trials*: 1st, Lieut. Kendall, *Sleepy*; Lieut. Powers, *Major Skagg*; Lieut. Lowe, *Sonny Boy*; 4th, Lieut. Michela, *War Terror*.

Open Jumping: 1st, Lieut. Kendall, *Sleepy*; Lieut. Lowe, *Pinto*.

Hunters—pairs: 2nd, Lieuts. Powers and Michela, *Major Skagg* and *War Terror*; 3rd, Lieuts. Kendall and Lowe, *Sleepy* and *Pinto*; 4th, Lieuts. Kendall and Lowe, *Red King* and *Sonny Boy*.

Open Jumping—Bareback: 1st, Corporal Blackmore, *Sleepy*; 2nd, Dick Collins, *Major Skagg*; 3rd, Lieut. Kendall, *Sonny Boy*; 4th, Lieut. Lowe, *Pinto*.

Polo Ponies: 2nd, Lieut. Lowe, *Pinto*; Lieut. Powers, *Conar Horse*.

Road Hacks: 1st, Lieut. Powers, *Major Skagg*; 2nd, Lieut. Kendall, *Pinto*.

Pairs of Hacks: Mrs. Kendall, *Red King*, and Lieut. Kendall, *Major Skagg*.

NONCOMMISSIONED OFFICERS' NIGHT RIDE:

Individual:

- 1st, 1st Sergt. Floyd Barrett, M. G. Tr., 11th Cav.
- 2nd, Sgt. Eldridge McCormick, Tr. E., 11th Cav.
- 3rd, Sgt. Neil V. McCarron, Tr. E., 11th Cav.
- 4th, Corp. Chester H. Byrain, Tr. F, 11th Cav.
- 5th, Corp. Lindsay Everett, Hq. Tr., 11th Cav.
- 6th, Sergt. David Lewis, Tr. B, 11th Cav.

Organization Team Winners:

Machine Gun Troop, 11th Cavalry:

- 1st Sergt. Floyd Barrett, Sgt. Henry Pusel, Sgt. Paul Foster, Corp. Thomas E. Collins, Corp. Stanley Gida.

PRESIDIO AND MONTEREY PENINSULA HUNTER TRIALS AND HORSE SHOW

Hunter Trials:

- 1st, Lieut. Lowe, *Major Skagg* (U. S. Govt.)
- 2nd, Lieut. Ridge, *Silver* (owned by Lt. Crandell)
- 3rd, Lieut. Powers, *Crimson Runner* (owned by Lt. Lewis)
- 4th, Lieut. Kendall, *Red Sage* (U. S. Govt.)

The *Training Test Phase* was won by *Brass Tacks*, owned by Mrs. H. G. Conar, Captain Conar up.

The *Cross Country and Jumping Phases* were won by *Major Skagg*, Lieut. Lowe up.

Recruit Class:

- 1st, Pat, Pvt. Barnes, Troop A;
- 2nd, *Little Colonel*, Pvt. Barnard, Tr. E;
- 3rd, *Mary Ann*, Pvt. Hall, Troop B;
- 4th, *Baldy*, Pvt. Crossman, Troop A.

PRIVATES JUMPING

- 1st, *Masquerade*, Private Hanna, Troop A
- 2nd, *Bull Dog*, Private Benson, Troop E
- 3rd, *Lady Anne*, Pfc. Gibson, Headquarters Troop
- 4th, *Lady*, Private Avery, Troop B

N. C. O. JUMPING

- 1st, Pat, Sergeant Martin, Troop A
- 2nd, *Red Sage*, Corporal Butler, Troop B
- 3rd, *Midnight*, Sergeant Neal, Headquarters Troop
- 4th, *Scotty*, Corporal Vaughn, Troop A

BEST TURNED OUT TROOPER

- 1st, *Crimson Runner*, Private McPherson, Battery E
- 2nd, *Major Skagg*, Sergeant Mapes, Headquarters Troop
- 3rd, *Captain Kid*, Pfc. Noel, Troop A
- 4th, *Lady Mae*, ? , Battery D

TOUCH AND OUT

- 1st, *Betty*, Corporal Blackmore, Troop B
- 2nd, *Gale*, Private Hutchinson, Headquarters Troop
- 3rd, *Jimmie*, Sergeant Martin, Troop A
- 4th, *Tobiana*, Private Berger, MG, Troop

PAIR JUMPING

- 1st, *Valencia*, Corporal Shipman, Troop A
- Scotty*, Corporal Vaughn, Troop A
- 2nd, *Faithful*, Sergeant Barnes, Troop F
- Bellie*, Corporal Wilcox, Troop F
- 3rd, *Reno*, Corporal Blackmore, Troop B
- Butch*, Corporal Alberchtson, Troop B
- 4th, *Snort*, Private Anglum, MG Troop
- J. P.*, Corporal Gida, MG Troop

BAREBACK JUMPING

- 1st, *Henry*, Private Anesi, Battery E
- 2nd, Pat, Pfc. Hanna, Troop A
- 3rd, *Midnight*, Sergeant Smith, Headquarters Troop
- 4th, *Butch*, Private Hettrick, Troop B

TEAM OF THREE HUNTERS

- | | Owner |
|---------------------------------------|------------------|
| 1st <i>Crimson Runner</i> , Lt. Power | Lt. Lewis |
| <i>Lady Bug</i> , Capt. Gibney | Capt. Gibney |
| <i>Betty</i> , Lt. Kendall | U. S. Government |
| 2nd <i>Del Brutus</i> , Dick Collins | Sam Fertig |
| <i>Red Sage</i> , Lt. Kendall | U. S. Government |
| <i>Major Skagg</i> , Lt. Lowe | U. S. Government |

3rd *Sandy*, Lt. Collins
Henry, Lt. Power
Sun Up, Lt. Hartshorn
4th *Red*, Lt. McBride
Reno, Lt. Harris
Entry, ?

U. S. Government
U. S. Government
U. S. Government
Capt. Thornton
U. S. Government
?

CHILDRENS' SEAT AND HANDS CLASS
(Junior)

1st, Eileen Merrill, Presidio of Monterey
2nd, June Mewshaw, Presidio of Monterey
3rd, Patsy Ford, Pebble Beach, California
4th, Fred Skeetop, Salinas, California

CHILDRENS' SEAT AND HANDS CLASS
(Senior)

1st, Mary Anne Gibney, Presidio of Monterey
2nd, Betty Durnford, Presidio of Monterey
3rd, Mary Jane Ford, Pebble Beach, California
4th, Salley Warner, Salinas, California

POLO PONY SCURRY

1st, *Bubble*, Dick Collins
2nd, *Sarucce*, Dick Collins
3rd, *Betsey*, Lt. Ridge
4th, *Powder Puff*, Lt. Ridge

Owner
Douglas School
Dick Collins
U. S. Government
Mrs. H. D. Phelps

OPEN JUMPING

1st, *Over ' Top*, Alex Sysin
2nd, *Big Ben*, Mary Hayne
3rd, *Det Lewis*, Alex Sysin
4th, *Pat*, Sgt. Martin

Owner
Mrs. H. G. Conar
P. B. Stables
Mrs. H. G. Conar
U. S. Government

ROAD HACKS

1st, *Beau Geste*, Andrew Foley
2nd, *Crimson Runner*, Lt. Power
3rd, *Gyp*, Col. Leininger
4th, *Pelallani*, Mr. R. Johnson

Owner
Mrs. F. H. Lane
Lt. Lewis
Col. Leininger
Mrs. R. Johnson

HURRY SCURRY

1st, *Jimmie*, Lt. Lowe
2nd, *Traveling Man*, Andrew Foley
3rd, *Over ' Top*, Alex Sysin
4th, *Major Skagg*, Lt. Lowe

Owner
U. S. Government
Mrs. F. H. Lane
Mrs. H. G. Conar
U. S. Government

ROMAN RACE

1st, *Dick*, Sgt. Sypolt, MG Troop
Loose Heels, Sgt. Sypolt, MG Troop

Owner
U. S. Government
U. S. Government
Lynn Hodges Stbl.
Lynn Hodges Stbl.

2nd, *Moonlight*, ?
Silver, ?

3rd, *Golden Spray*, Cpl. Hannan,

Snookums, Cpl. Hannan,

Troop E U. S. Government

Troop E U. S. Government



Heldrick & Heldrick, Monterey, Calif.

Presidio of Monterey Horsemen—Seated, left to right: Lieutenant Lowe, Lieutenant Dugan, Captain Gibney, Colonel Parker, Lieutenant Kendall, Lieutenant Ridge, 11th Cav., Lieutenant Power, 76th F.A. Standing, left to right: First Sergeant Sapash, Troop "A," First Sergeant Barrett, M.G. Troop, Sergeant Shantz, Troop "B," Sergeant Martin, Troop "A," Sergeant Pusel, M.G. Troop, 11th Cav., Private Angerer, Battery "D," 76th F.A., Private First Class Filburn, M.G. Troop, 11 Cav.

MILLS COLLEGE HORSE SHOW

TEAMS OF TWO JUMPERS (Open)

- 1st, *Pinto* and *Betty*, Lieutenant Power
2nd, *Sleepy* and *Reno*, Lieutenant Lowe

JUMPERS OPEN (Outside Course)

- 4th, *Pinto*, Lieutenant Power

TOUCH AND GO

- 1st, *Sleepy*, Lieutenant Lowe
2nd, *Major Skagg*, Lieutenant Lowe
3rd, *Pinto*, Lieutenant Power

HURRY SCURRY

- 1st, *Major Skagg*, Lieutenant Lowe
2nd, *Betty*, Lieutenant Power
3rd, *Reno*, Lieutenant Lowe
4th, *Pinto*, Lieutenant Power

ROAD HACKS

- 2nd, *Crimson Runner*, Lieutenant Power
3rd, *Major Skagg*, Lieutenant Lowe

HUNTER OPEN

- 4th, *Major Skagg*, Lieutenant Lowe

HUNTERS AND JUMPERS CHAMPIONSHIP

- 1st, *Major Skagg*, Lieutenant Lowe
2nd, *Pinto*, Lieutenant Power
3rd, *Betty*, Lieutenant Power
4th, *Sleepy*, Lieutenant Lowe

TRIPIAD (Three Day Event)

Training Phase

- 1st, *Crimson Runner*, Lieutenant Power
2nd, *Major Skagg*, Lieutenant Lowe

Cross Country Phase

- 1st, *Pinto*, Lieutenant Power
2nd, *Betty*, Lieutenant Power

Jumping Phase

- 1st, *Sleepy*, Lieutenant Lowe
2nd, *Betty*, Lieutenant Power
3rd, *Crimson Runner*, Lieutenant Power

TRIPIAD EVENT

- 1st, *Crimson Runner*, Lieutenant Power
3rd, *Betty*, Lieutenant Power

SAN MATEO COUNTY HORE SHOW

RESULTS:

HUNTERS (Conformation 40%, Performance 60%)

Heavy Weight (green)

- 2nd, *Ben*, Lieutenant Kendall

HUNTERS (Conformation 40%, Performance 60%)

Light Weight (qualified)

- 4th, *Sleepy*, Lieutenant Kendall

JUMPERS (Performance Only)

Five-Foot Class

- 1st, *Sleepy*, Lieutenant Kendall

HUNTERS (Conformation 40%, Performance 60%)

Light Weight (green)

- 4th, *Major Skagg*, Lieutenant Lowe

JUMPERS (Performance Only)

\$250 jumper stake

- 4th, *Ben*, Lieutenant Kendall

JUMPERS TOUCH AND OUT SWEEPSTAKE

(Performance Only)

- 1st, *Sleepy*, Lieutenant Kendall

JUMPERS TRIPLE BAR CLASS (Performance Only)

- 1st, *Sleepy*, Lieutenant Kendall
2nd, *Major Skagg*, Lieutenant Lowe
4th, *Prince*, Sergeant Shantz

HUNTERS (Conformation 25%, Performance 75%)

\$500 Championship Stake

- Champion 1st, *Ben*, Lieutenant Kendall
Reserve 2nd, *Red*, Lieutenant Power
4th, *Major Skagg*, Lieutenant Lowe

JUMPERS (Performance Only)

Touch and Out Sweepstakes

- 1st, *Pinto*, Lieutenant Lowe

JUMPERS (Performance Only)

Touch and Out Sweepstakes (Final)

- 2nd, *Pinto*, Lieutenant Dugan

HUNTERS (Conformation 40%, Performance 60%)

(Ladies)

- 3rd, *Red*, Mrs. P. Ridge

MILITARY TEAM CHAMPIONSHIP (Performance Only)

(Jumpers Pairs)

- 1st, *Sleepy*, Lieutenant Kendall
Prince, Sergeant Shantz

HUNTERS (Conformation 40%, Performance 60%)

Team of Three

- 1st, *Ben*, Lieutenant Kendall
Red, Lieutenant Power
Red King, Captain Gibney
3rd, *Major Skagg*, Lieutenant Lowe
Captain Kid, Lieutenant Dugan
Betty, Lieutenant Ridge
4th, *Pinto*, First Sergeant Sapash
Scotty, Sergeant Pusel
Bonny Boy, Private Filburn

HUNTERS (Conformation 40%, Performance 60%)

(Pairs)

- 3rd, *Scotty*, Lieutenant Dugan
Silver, Lieutenant Ridge
4th, *Captain Kid*, Lieutenant Rowe
Captain Kid, Mr. Allen Lane

(Handy)

- 1st, *Ben*, Lieutenant Kendall
3rd, *Red*, Lieutenant Power
4th, *Sleepy*, Lieutenant Kendall

HUNTERS (Conformation 40%, Performance 60%)
(Open)

- 2nd, *Major Skagg*, Lieutenant Lowe
3rd, *Red*, Lieutenant Power
4th, *Ben*, Lieutenant Kendall

Fort Meade Polo, 1934

POLO began this season about the first of May. The regular string of horses had become sadly depleted due to old age and other causes, and it became necessary for each officer who wished to play to bring out at least one new horse in order to mount himself. Thus there were added to the original fourteen horses six good new ones before the end of the season.

Major John T. Minton was elected Polo Manager to replace Captain J. C. Rogers, ordered to foreign service; Lieutenant George W. Busbey became Assistant Polo Manager and Team Captain. From the middle of May on, practice games were played with a civilian team from Sturgis, South Dakota, a near-by town, at least twice and sometimes three times a week. These gentlemen are well mounted, very enthusiastic, and have furnished our players with excellent competition. We are greatly indebted to them for their interest in the game; without their cooperation it would have been almost impossible to play at all, due to the difficulty of turning out eight players on any specified day.

In July a regimental team participated in a tournament at Fort Francis E. Warren, Wyoming, in which teams representing the 1st Infantry Brigade, the 76th Field Artillery and Cheyenne were to play. All games were played on George Ball Field at the post and were hotly contested from start to finish.

SUNDAY, JULY 15TH

FORT MEADE (16)			CHEYENNE (4)		
Pos.	Player	Hcp.	Pos.	Player	Hcp.
1	Capt. Bertholet	(0)	1	Dr. Phelps	(0)
2	Lieut. Bixel	(1)	2	Mr. Bunge	(0)
3	Lieut. Trapnell	(1)	3	Dr. Harris	(0)
4	Lieut. Busbey	(2)	4	Mr. Bradley	(0)

Umpires: Captain Boyers, Lieut. Brimmer.

WEDNESDAY, JULY 18TH

1ST BRIGADE (7)			76TH F.A. (5)		
Pos.	Player	Hcp.	Pos.	Player	Hcp.
1	Lieut. Leeper	(0)	1	Lieut. Lawes	(0)
2	Lt. Van Hauten	(2)	2	Lieut. Murray	(0)
3	Capt. Boyers	(2)	3	Lieut. Barrett	(0)
4	Capt. Chapman	(0)	4	Lieut. Rankin	(0)

Umpires: Lieut. Busbey, Lieut. Brimmer.

SUNDAY, JULY 22ND

Finals: Fort Meade (4) 1st Brigade (3)

Following the final match individual silver loving cups were presented to the members of the Fort Meade team by Mrs. C. H. Conrad, Jr., wife of the Commanding General of the garrison.

During the week between games a small horse show

was held, consisting of a few jumping and polo classes. In the latter our string took its share of the ribbons.

Upon returning to our home station, after a week out to rest up the ponies, regular practice games with Sturgis were resumed until about August 20, when the team again left Fort Meade to compete in a tournament at Grand Island, Nebraska, to which Fort Leavenworth, Fort Warren and Fort Des Moines also sent teams.

The tournament was sponsored by the local American Legion Post as a drawing card for a state convention of that organization held in Grand Island, August 26, 27 and 28. Despite the fact that the committee handling the affair was entirely unfamiliar with the game, the arrangements were excellent. A playing field and grandstand were constructed at the town airport, good stabling facilities were furnished, and everything that could be done was done to make the players' stay pleasant. It was decided, at a conference of the committee and the team captains, to play a double header on August 26, the consolation match on August 27, and the finals on August 28. This was the most satisfactory arrangement that could be made and still play all games while the convention was in progress.

The tournament was characterized by hard, fast polo on all sides and by immense crowds. Its object was an attempt to popularize the game in a place where polo is almost unknown. If one is to judge popularity by numbers present, the game was, indeed, a winner the three days it was played at Grand Island. The first afternoon brought out a crowd of 7,000 paid admissions and almost the same number on the two succeeding days.

In addition to the polo, on the day of the consolation match, a jumping exhibition was put on; this was quite enthusiastically received by the crowd. After the final match individual silver cups were presented to the winners of the consolation and the final games, as well as a silver trophy to the winning team.

SUNDAY, AUGUST 26TH

FORT WARREN (7)			FORT LEAVENWORTH (6)		
Pos.	Player	Hcp.	Pos.	Player	Hcp.
1	Capt. Chapman	(0)	1	Major Ellis	(1)
2	Lieut. Leeper	(0)	2	Lieut. Noores	(2)
3	Lt. Van Hauten	(2)	3	Capt. Guenther	(1)
4	Lieut. Willis	(0)	4	Capt. Finley	(1)

Umpires: Capt. Buechler, Mr. Ogden.

2nd Game

FORT MEADE (5) FORT DES MOINES (3)

(Concluded on page 80)

THE FOREIGN MILITARY PRESS

REVIEWED BY MAJOR ALEXANDER L. P. JOHNSON, INFANTRY

ARGENTINA—*El Caballo*—June, 1934.

The Argentine Army Remount Service began publication of a new periodical devoted to the horse, horse-breeding and related subjects. The first number of this interesting magazine, released under the auspices of the Ministry of War, contains 28 pages of highly informative material, profusely illustrated, which should prove of interest not only to cavalymen and devotees of the horse in general, but to horse-breeders and more particularly to veterinarians. Distribution is free.

MEXICO—*Revista del Ejercito y de la Marina*—February, 1934.

A NEW ORIENTATION OF THE FOREIGN POLICY OF MEXICO. By Lic. Fernando Lera, ex-E.E. and M.P.

The recent revolutions have wrought momentous changes in the internal life of Mexico and inevitably affected Mexican international relations as well. The author notes in this article, first in a series on foreign affairs published by the important Mexican daily, *El Nacional*, that for the first time in her history Mexico has a chan-cery which inspires and directs a foreign policy based exclusively upon national interests and upon the new tendency of nations to seek the achievement of just aspirations in the international field by means of open diplomacy in which the interdependence of common interests imposes upon all nations a policy of mutual understanding, sincere coöperation and close economic collaboration.

Referring to the Pan-American Congress, which met at Montevideo in December, 1833, the author notes with satisfaction the important part played by Mexico, and the strong cohesion manifested by the American republics which heretofore had not had particular success in the discussion of international affairs. The author attributes the success of the Mexican delegation at Montevideo to the fact that the Mexican State Department has, for the first time in its history, become an effectively and efficiently functioning organization for the conduct of foreign affairs. He credits Sr. Puig Casauranc, Secretary of Foreign Affairs and formerly Mexican Ambassador to the United States, with effecting reforms whose far-reaching importance in the life of Mexico cannot be overestimated.

SOME OBSERVATIONS ON OUR MILITARY PREPAREDNESS. By Captain Luis Viñalo Carsi, Artillery—March, 1934.

Ascribing the social and economic ills which plague the world to an universal apprehension of impending war, the author seeks to determine the probable effects of

World conditions upon the smaller nations which devote their attention to internal problems, and which do not seek to acquire new markets for their products. He points out the well-known fact that during the world war small nations were practically compelled to become partisans of the one or the other group or belligerent powers. To show what might befall Mexico in an hypothetical conflict between Japan and the United States, the author quotes Frederick A. Oliphant, Secretary General of the "International Society of the Americas," to the effect, that the Japanese navy and troop ships would silently cross the Pacific and establish a base of operation against the United States on the undefended coast of Lower California. "Only with the help of American troops fighting on Mexican soil would Mexico be able to repel the invader. Should, however, Mexico unaided offer resistance, Japan would resort to drastic measures, and Mexico would forfeit the possibility of favors in the future. If, on the other hand, Mexico were not to offer resistance, Japan might offer her certain concessions, but in that event the United States would be compelled to disregard international frontiers to defend its national interests. The United States would be justified in holding Mexico accountable for any damage that might result from Mexico's complacent attitude."

The author, in acknowledging the possibility of a situation such as Oliphant pictures, proceeds to examine the means at Mexico's disposal to meet the apprehended contingency. The Mexican infantry, he states, is armed with three or four different types and calibers of rifles and machine guns. This condition, he rightly concludes, is bound to entail grave consequences. Notwithstanding the scarcity of water in northern portions of Mexico, the author advocates the adoption of the water-cooled machine gun because of its greater capacity for sustained fire. Experience shows, he states, that the air-cooled machine gun becomes so over-heated in a short space of time that it cannot be fired again until it is cooled off sufficiently by artificial means. The author adds that as long as troops carry enough drinking water, there should always be an ample supply of water for the machine gun. Once the supply of drinking water is exhausted, nothing can save the army from a catastrophe.

The Mexican Army, the author notes, has no guns capable of high angle fire. The procurement of mortars for the artillery, he states, is imperative. Similarly hand and rifle grenades must be added to the infantry armament. The infantry also needs a satisfactory accompanying gun. Armored cars and tanks, the author observes, under conditions existing in Mexico would at best have but experimental value.

FRANCE—*La Revue d'Infanterie*—February, 1934.

THOUGHTS ON ANTI-TANK DEFENSE. By Lieutenant Colonel Henry Martin.

The defence of a center of resistance, the author writes, is based upon the barrage of automatic weapons of small caliber. Against tanks this system of defence is, in the author's opinion, inadequate. Assuming a situation in which the opposing forces are entrenched in positions about 100-500 meters apart, the author visualizes a day-break attack preceded by a line of fast tanks, about 20 for each battalion front of 1,000 meters. Travelling at a rate of speed 16 km. per hour, these tanks would require but two minutes to cover the space of 500 meters, or less than 30 seconds to cross the space of 100 meters between the opposing trenches. The battalion not armed with anti-tank guns might succeed in putting out of action some of the tanks while they cross No-Man's land where it is widest, but on the whole, their efforts would prove ineffective.

The author observes that we might select our defensive positions so that they would be protected by natural obstacles in path of hostile tanks, such as dense woods, villages, bluffs, rivers or lakes. Of these, the author states, woods are the best, but he warns that care must be exercised to prevent the infiltration of enemy infantry. He cites the rôle of the woods near Cambrai in the battle of November, 1917, as a classic example. Villages and bluffs must likewise be defended against the ubiquitous infantryman. Water courses are serious obstacles to tanks. Although amphibian tanks might negotiate such obstacles, their armor plate is generally so light as to render them quite vulnerable to infantry fire. Again, he warns, the doughboy must be watched, for he alone is capable of overcoming any obstacle.

Artificial obstacles, such as mines, the author states, might serve a useful purpose in connection with permanent and semi-permanent fortifications. However, unless such mines are buried at some depth, the risk will exist that they might explode prematurely, perhaps as the result of the action of hostile artillery. On the other hand, a mine field adequately protected against premature explosion, yet provided with a system of effective control, would necessitate measures sufficiently elaborate to be incompatible with the normal flux of battle.

In the author's opinion, natural obstacles as a means of anti-tank defence are at best an expedient, while anti-tank weapons will render the main line of resistance independent of obstacles. In order to stop an assault wave of infantrymen, the author believes, the defence would require 20 automatic weapons to each 1,000 meters front. If we assume that if in the short space of time required by the tank to cross No-Man's land the anti-tank gun can put out of action two tanks, then it will be necessary, the author states, to provide at least ten anti-tank guns for every 100 meters front, in order to combat effectively a line of tanks attacking at intervals of 50 meters. However, the author adds, units protected by natural obstacles need not be equipped with such weapons, hence he con-

cludes, anti-tank guns must be organized into regimental units available for attachment to battalions as the need for that arises. A divisional anti-tank gun company would be equally valuable in that it would enable the division commander to reinforce his regiments when needed.

The author believes that regimental anti-tank guns should be capable of going into action rapidly and to go out of action with equal dispatch. The divisional anti-tank gun battery might well be tractor-drawn for cross-country travel which would enable it to go into action wherever needed.

—*Revue Militaire Française*—April, 1934.

WHAT WE SHOULD KNOW ABOUT THE YUGOSLAV ARMY. By Lieutenant Colonel Delmas.

After acquainting the reader with the historic, ethnographic, geographic, economic and political background, the author renders a concise account of the strength, composition and equipment of the army of Yugoslavia. He states that with a population of 13 million, the annual contingent of recruits amounts to about 133,000 men of whom 80 to 90 thousand are actually enrolled in the army, while the remainder are allotted to certain schools, the gendarmerie and certain permanent cadres. Service is universal and compulsory. The maximum man power available in case of war is estimated at three million.

In time of peace the Yugoslav Army consists of five armies of 3-4 divisions, one regiment of heavy artillery and one maintenance company each. There are at present 16 divisions, each consisting of one infantry brigade of three to four regiments, one artillery brigade of two regiments and one train squadron. It has neither cavalry nor engineer troops. The Guard Division consists of one regiment of infantry, two regiments of cavalry, one regiment of artillery of two battalions and one company of engineers. Two cavalry divisions consists of two brigades of two regiments each, one battalion of artillery of three batteries, one cyclist battalion, one platoon pioneers, mounted, and one mounted signal troop.

By arms, the Yugoslav army consists of 58 regiments of infantry and 67 frontier guard companies. The infantry regiments consist variously of 2, 3 or 4 battalions, one machine gun company and one howitzer platoon armed with two 37 mm. guns. The battalion consists of four rifle companies and one machine gun company. The company consists of four platoons.

There are eight regiments of cavalry (8 divisional and 2 Guard). The regiment consists of four troops (escadron) and one machine-gun troop.

The artillery comprises eight regiments of field artillery of two battalions of two batteries each, except the battalions of the Guard division; 8 separate F.A. battalions of 2 to 4 batteries; 16 mixed regiments with one battalion of two batteries armed with howitzers.

The horse artillery consists of two mixed battalions of two field gun batteries and one mountain battery. The heavy artillery comprises five regiments of two battalions of three batteries each armed with 105, 150 and 155's;

one fortress artillery regiment of three battalions and one artillery park company; 3 separate battalions of G.H.Q. reserve artillery, two batteries each, armed with guns of heavier caliber than 155.

The Air Force consists of six regiments organized in two air brigades. The organization of an additional regiment is in project.

The Military Academy at Belgrade consists of two schools. The lower provides a three-year course for cadets who, upon graduation, enter the commissioned ranks as lieutenants. The advanced course provides two years' training for selected officers aspiring to general staff assignment. Special schools of the several arms and services offer various courses for the professional training of officers and N.C.O's.

The infantry is armed with the Mauser rifle, the Czechoslovak light machine gun, Model 1926, cal. 7.92 mm. and French heavy machine guns. Artillery matériel is of variegated type and caliber. Military aviation, already of importance, is growing in numbers and improving in quality from year to year. Although domestic industry is capable of producing a considerable portion of the needed military equipment, a great deal is still being procured abroad.

Having won three wars in succession, the Serb soldier has the victor complex. The Yugoslav race is excellent in body and soul. The army is rustic, animated by a live, patriotic faith, and it is being trained by enthusiastic leaders. It represents a powerful instrument of war, and it is being improved day by day.

GERMANY—*Luftwehr*—1 February, 1934.

THE AIR PROBLEM OF THE PACIFIC. By Major Baron von Bülow.

With the focal point of world affairs in the Pacific, the author looks to Japan as the probable source of the next armed conflict. He ascribes Japan's recent aggressive policy of conquest to a rapidly increasing population and a serious shortage of raw materials. In the author's opinion, success in Manchuria and Jehol represents the first though minor step in the realization of Japanese hegemony over the Pacific. Further effort in that direction, the author writes, will inevitably bring Japan into conflict with all powers bordering on the Pacific. China, torn by civil war, is unable to offer resistance. Japanese activities seriously menace the eastern possessions of Soviet Russia. The United States, the author states, views with alarm Japanese expansion towards the south, and it is equally concerned about its Far Eastern markets. Japan and Great Britain are right now in the throes of an economic war, while the Netherlands feel deep concern regarding the safety of their valuable possessions in the East Indies. Only France appears to be neutral, notwithstanding her colonial interests in the Far East.

The great distance which separates Japan from her chief opponents confers upon the Island Empire a great strategic advantage. A naval attack, the author believes, would present serious difficulties. Japan can close the

Japan, China and Yellow seas by means of mines and submarines. The great difficulty in the problem of supply, in the author's opinion, precludes the possibility of Russian success in a prolonged campaign. With this situation in mind, the author seeks to determine the probable effect of air power upon the outcome of a theoretical conflict. He believes that the cruising radius of bombers, though ample for the European field, is totally inadequate for the requirements of the Pacific theatre of operations. He does not believe that peace time achievements in individual and mass flights indicate what might be expected under conditions of war. In his opinion, geographical position places Japan beyond the cruising radius of hostile bombers operating from the Asiatic mainland, for Japan's first concern in case of hostilities with Russia would be either to destroy or to take possession of Vladivostock and thus eliminate any possible threat from that direction. Although Soviet Russia is supposed to have an air force of about 1,000 planes in the Far East with about 200 of them near Vladivostock and Nikolsk with considerable cruising radius, the author is of the opinion that the great difficulty in the way of replacements and supply would preclude decisive air action against Japanese ground troops concentrating on the Asiatic mainland. On the contrary, he believes, Russia would be compelled to resort to exceptional measures to safeguard her single line of communications with the homeland against serious damage by Japanese aviation. Geographical factors thus confer upon Japan an advantage over Russia in the air. Russia is making a great effort, the author states, to increase her air arm to overcome the existing disadvantages, but that, in his opinion, cannot be done unless Russia succeeds in defeating the Japanese land army, and opens the way for establishing her own air bases in Korea or nearer to the coast of the Yellow Sea. This is unlikely, the author states.

China, the other serious opponent of Japan, has practically no aviation. The author notes, however, that according to Japanese reports, the United States entered into an agreement with China to supply the latter 800 pursuit planes and bombers by 1936. Moreover, he states, the United States will supply trained personnel to organize four schools for the training of Chinese aviation personnel. The author apparently failed to investigate the veracity of these reports, but assuming their accuracy, expresses the opinion that China equipped with American aviation matériel and provided with American-trained personnel would materially impair Japan's position.

The air policy of the United States, Japan's principal rival in the Pacific, the author writes, not only seeks to turn China into a formidable air power, but it is equally desirous of exploiting China for the benefit of American commercial aviation. He notes, that the "China National Aviation Company," which operates between Shanghai, Tientsin and Peking, is American controlled. The author believes that this concern possesses far-reaching military importance. He states, that American control of China's military and civil aviation discloses a well-planned, syste-

matic effort to bring about Japan's strategic encirclement from the West. By means of a well-developed system of airports, he writes, the United States hopes to obtain a chain of "points d'appui" in the interior of China which would materially enhance America's influence in the military-political affairs of China.

The author discerns other important plans still up Uncle Sam's proverbial sleeves. Colonel Lindbergh's extensive air voyage last year evoked further speculation as to the real purpose of the United States. He states that Colonel Lindbergh held important conferences with the Soviet authorities with a view of extending American air lines into Siberia, which, if, when and as accomplished would result in Japan's encirclement from the north. On the other hand, the author believes, the America's strategic position to the east and south of Japan is not as favorable. Although the powerful American navy possesses or has under construction gigantic airplane carriers, and possesses refuelling bases in Hawaii, Guam, the Philippines and "other islands of the Pacific," it is hardly to be expected, he writes, that all of these carriers, whose complement of bombers could drop 100 tons of bombs, would actually attempt to close in on Japan for an attack. Japanese aviation and coastal defense, he believes, are adequate to prevent such contingency. The author states that American engineers are now preparing plans to increase materially the cruising radius of airplanes, and that a number of the latest models capable of long sustained flights are already stationed in the Canal Zone and the insular possessions of the United States.

Japan's military aviation, according to the author, consists of eleven air regiments with 2,050 airplanes and 22,000 officers and men. Japan considers this force inadequate for her needs and is planning material increases. Upon completion of her program, the author believes, Japan will equal if not exceed America's strength in the air—at least numerically. Technically, however, he states, Japan will remain considerably inferior to the United States. The author attributes three important war missions to Japanese aviation: 1. protection of the homeland against hostile attack; 2. support of the armies operating against Russia and China; 3. strategic attacks and raids beyond the seas. He observes, that Japan recently established an air base on the island of Saipan, in the Marianas, in close proximity to Guam.

In conclusion, the author writes, "if Japan possesses a strategic advantage in the air . . . her predominance at sea is even greater." Only joint operations of the American, British and Dutch naval and air forces hold out some prospect of success. Notwithstanding the aggressive character of American expansion, strangely enough, the author does not attribute any bellicose intentions to Uncle Sam. He does not believe the United States would actually intervene in a conflict in the Pacific because nothing would be gained by such an adventure, while it might entail a possible loss of influence and prestige. In other words, American neutrality is seemingly assured in the next conflict, and Russia once more

allied to France, the author apparently discerns potent reasons why the Reich should team up with Japan for the show-down.

INDIA—*The Journal of the United Service Institution of India*—April, 1934.

CHINA'S CASE. By Captain A. E. Swann, I.A.S.C.

The author undertakes to present the Chinese point of view in the controversy with Japan. He regards the Japanese action and the inability or unwillingness of the Powers to stop it a serious menace to world peace. Japanese aggression in China, he states, is creating a situation pregnant with the danger of war on such a colossal scale that it is difficult to visualize what might be the end of it. China is arming, he writes, and is growing slowly and steadily more united. All she needs is unification and able leadership. Hatred of the Japanese is materially aiding the cause of unification.

Chang Kai Shek, aided by some fifty odd German officers, has laid the foundation of a new nationalist army, organized and armed on the Czechoslovak pattern. The training of the Chinese navy has been placed into British hands. Given funds and a certain amount of time, the author believes, the Chinese will drive the aggressor from their territory. With Russia as a possible ally, the storm may break much sooner than it would otherwise.

The author charges that most of the press comments and articles dealing with Manchuria have been tinged with a Japanese flavor. The Chinese point of view can hardly be heard. He takes issue with the various assertions of apologists for Japan and arguments advanced by the Japanese themselves on the subject. Contradicting the claim that Japan had saved Manchuria from Russian aggression and communism, the author points out that under Marshal Chang Tso Lin Manchuria was the only part of China which enjoyed a comparatively stable administration, and was more or less immune from civil war and disorder. Japan was not so much afraid of Russian aggression, he states, as of Chinese progress. Although Chang Tso Lin owed his rise to power to the Japanese, his subsequent independent attitude aroused the Japanese against him. He met his death on June 3, 1928, as a result of a bomb explosion while traveling on the Japanese South Manchurian Railway. His son, though considered a weakling and an opium addict, overcame his bad habits, and proved a greater menace to Japanese hopes than his father.

Unless the Japanese administration in Manchukuo becomes benevolent and thereby induces the anti-Japanese feeling to die down, and unless Japan sees the wisdom of cooperating with China rather than fighting her, the author concludes that the situation created by Japanese action in Manchuria will continue to menace the peace of the Far East. "The rising tide of Bolshevism may be a disturbing thought," the author adds, "but a rationalized Communism and Socialism will assuredly seem to many to be less alarming than economic domination by a Japan omnipotent in the Far East."

ORGANIZATION ACTIVITIES

Fourth Cavalry Fort Meade, S. D.

THE old site of Camp Sturgis, first camp of the U. S. Cavalry before the permanent location of Fort Meade, has been relocated this week through the efforts of Colonel W. R. Pope, commandant at the fort, and the aid of Mrs. Belle Frederick, Sturgis, widow of the late John Frederick, who had shown her the location some time before his death.

An army was sent out in 1877 to protect the miners and settlers in the Black Hills. Their commander chose a spot on Spring Creek and named it Camp Sturgis after Lieutenant Sturgis, who fell with General Custer at the Battle of the Little Big Horn. Near the camp sprang up a settlement known as "Scooptown," in which lived all the revelers and followers of a military camp.

When the permanent camp was established by General Phil Sheridan in Bear Butte Valley, the settlement gradually disappeared. Life in old Camp Sturgis had been wild and free, but, with the opening of Fort Meade, known first as Camp Ruhlin, law and order returned, and the old camp was soon forgotten.

Mr. Frederick, known as "Grasshopper Jim" around Sturgis, had homesteaded on land near the big springs, and, as he furnished supplies to the camps, he often drove his team over the tent pins in the dark. Long before his death, he took his wife to the location and pointed out to her the outlines of the old camp.

In his efforts to locate points of historic interest in connection with Fort Meade, Colonel Pope sent Lieutenant J. H. Stodter to find the site. Accompanied by Mrs. Frederick and John T. Milek, Sturgis historian, he drove to the Hamm place, and after some searching they located a series of regular depressions on a long slope north of Spring Creek, south of the old Bismarck Trail. Lieutenant Stodter found a large iron lariat pin, a halter ring and pieces of glass. In other parts were found old time beer bottles, horseshoe nails, rifle shells, and other articles indicating the presence of the camp. Along one side runs a wide and worn trail that led to Scooptown, where the boys went to have a good time.

Under the direction of Colonel Pope, it is expected that the camp will be surveyed and permanent markers placed, so that the location of the camp will never be lost.

Fort Meade has one of the most exciting histories of any cavalry post in the United States. Its early construction was interrupted when the troops were sent out to round up the Cheyennes, who had left the reservation, killing as they went. They planned evidently to combine forces with the Sioux and attack the whites but were rounded up and returned to the reservation by the troops,

who then returned to their building of the adobe huts, which formed Fort Meade's first barracks.

Many famous army officers have held the post, among them General Hugh Scott who died recently and was famous as an Indian authority. He held the Ute Indians here until he could make arrangements for their transfer to other locations. Captain Wallace, killed at Wounded Knee, Colonel Osmun Latrobe, General Hiles (sic), Secretary of War Taft, President Coolidge, and many others famous in American history have visited the fort or have been stationed there.

(Camille Yuill in Rapid City (S.D.) Daily Journal, September 20, 1934.)

Sixth Cavalry Fort Oglethorpe, Ga.

THE Regiment was shocked by the death of Major Roy O. Henry on August 19th, 1934, at this Post. At the time of his death, Major Henry was commanding the First Squadron, Sixth Cavalry, and Executive Officer, District "C," Civilian Conservation Corps, Fourth Corps Area.

The following officers have been assigned to and recently joined the Regiment:

Major Robert W. Strong,
First Lieutenant Arthur N. Willis,
Second Lieutenant Charles W. Schnaebel.

Orders have been received assigning Captains William R. Hamby and John M. Bethel to the Regiment. They are expected to join in the near future.

The Regiment has been engaged, during the month of August, in assisting, administering or servicing the following:

108th Cavalry—July 29 to August 12, 1934,
309th Cavalry—August 5 to 18, 1934,
310th Cavalry—August 5 to 18, 1934,
403rd Engineer Squadron—August 5 to 18, 1934,
Headquarters Troop, 155th Cavalry Brigade—August 5 to 18, 1934,
Headquarters, 31st Division—August 12 to 15, 1934,
Corps Area Service Command—August 12 to 15, 1934.

At the same time, the Post was charged with and continues to be charged with the administration of District "C," Civilian Conservation Corps, Fourth Corps Area, comprising seventy-one companies.

The Third Battalion, 22nd Infantry, returned to station at this post on August 27, 1934, from summer training duties at Camp Beauregard, Louisiana, and Fort McClellan, Alabama.

The Sixth Cavalry commenced annual Target Practice

on September 4th when the Second Squadron and Headquarters Troop moved to Catoosa Range for two weeks. The First Squadron moved to the Range, on September 17th for a two-weeks' period. On its return from Catoosa Range, the Third Battalion, 22nd Infantry, will occupy the Range for its annual practice.

During the week September 9-16, the Fort McPherson Polo Team played a series with the Fort Oglethorpe Team with the following results:

Date	Fort Oglethorpe	Fort McPherson
September 9th	6	7
September 13th	10	6
September 16th	8	3

The teams lined up as follows:

Fort Oglethorpe	Fort McPherson
1. Lieutenant Hutchinson,	Captain Wing,
2. Captain Herren,	Major Howell,
3. Major Boye,	Lieutenant Brown,
Lieutenant Ward,	
4. Lieutenant Johnson.	Lieutenant Barker.

Substitutes:

Lieutenant Sanford,
Lieutenant Clark.

The Fort Oglethorpe Polo Team will play a two-game series with the Iroquois Club at Lexington, on September 22nd and 23rd.

Headquarters Troop, Tenth Cavalry Fort Leavenworth, Kansas

PURSUANT to authority contained in paragraph 16, Special Orders, No. 197, c. s., War Department, the retirement of Master Sergeant Martin McDowell, Headquarters Troop, 10th Cavalry, is announced, upon completion of thirty years' service.

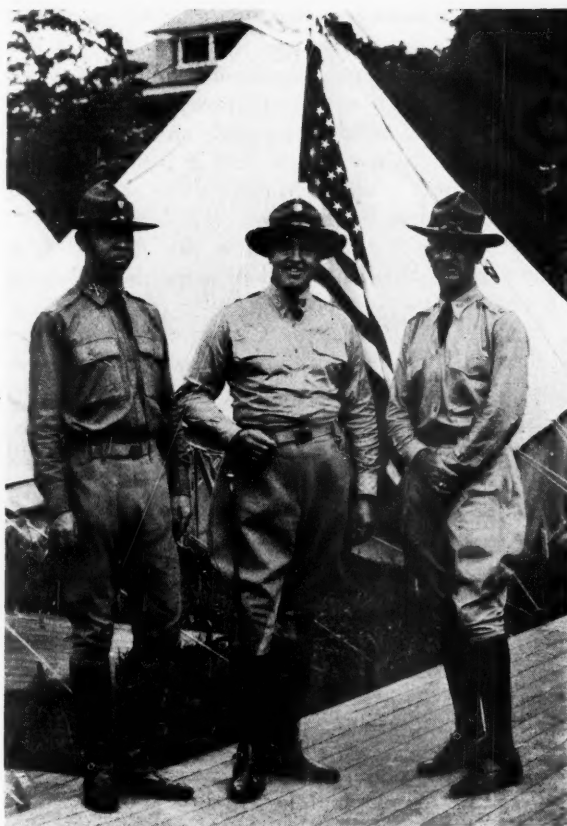
305th Cavalry Philadelphia, Pa.

IT is with great regret that we wish Godspeed to Major C. L. Clifford in his new assignment, after five years as Unit Instructor of this Regiment.

We wish to welcome Major Norman E. Fiske as the new Unit Instructor, and hope that he will find his stay happy and interesting.

This regiment acted during the Active Duty Tour from July 8th to August 5th as instructors at the C. M. T. C., Fort Myer, Va. The period was divided into two groups of two weeks each; the first under Major L. C. Bell and the second under our Commanding Officer, Colonel Matthew F. James. This tour of duty was both of deepest interest and most beneficial in training. It gave the officers an idea of the vast amount of energy, knowledge and necessity of leadership required to organize the troops and to continue their training, a closer comparison to mobilization needs than any other from of active duty.

The enthusiasm and attention to duty of the students was most contagious, and the consensus of opinion of all the officers was that we wished to repeat next year.



Scherer, Washington

62ND CAVALRY DIVISION TRAINING CAMP, FORT MYER, VA., AUGUST 12-25, 1934

LEFT TO RIGHT: Major M. S. Easby, 305th Cavalry, Colonel John Philip Hill, 306th Cavalry, Major J. C. R. Schwenck, Unit Instructor, 307th Cavalry

The Regiment was fortunate enough to have some 2,000 feet of film taken of its operations at Camp. This film will be shown during our winter activities.

Major Max Livingston, Jr., has been extremely fortunate in having been ordered to active duty with the Command Post Exercises held by the Regular Army along the eastern seaboard. He was assigned as Assistant Chief of Staff, III Corps.

1st Lieutenant John H. Allen is to be congratulated on receiving his promotion to 1st Lieutenant.

The hunting season now beginning will be enjoyed by a number of officers of this Regiment. We hope to make arrangements whereby this sport will be made available to a greater number of officers.

306th Cavalry Baltimore, Md.

A MOST successful active duty training period has just ended. Colonel John Philip Hill, the regimental commander, with some fourteen officers attended the training at Fort Myer, Virginia, from August 12th to 25th. The training was by groups (junior and senior) and

it was the consensus of opinion that this was ideal under the conditions of lack of troops.

The regimental commander formed a brigade staff, and on Sunday, the 19th, went over the battle of Cedar Mountain, making a detailed all-day study on the ground.

The three days spent in the field at Pohick were considered of great value, the trip from and return to Fort Myer being made by marching. It is believed that the younger officers of the regiment, as well as others in the 62nd Cavalry Division, will long remember the word, "Keep that ——— pistol up."

Major H. McE. Pendleton, Cavalry, the new instructor of the 306th, joined in time to attend with the regiment.

The officers attending camp are as follows:

Colonel John Philip Hill.
Major Geary F. Eppley.
Major Edward B. Harry.
Captain Henry P. Ames.
Captain Vernon J. Blondell.
Captain Edward A. Kane.
1st Lt. John W. Mann.
1st Lt. Edward McC. Perkins.
1st Lt. Ernest J. St. Jacques.
2nd Lt. Herman E. Weisman.
2nd Lt. Graham Dukehart.
2nd Lt. John B. Naughton.
2nd Lt. George McK. Gaither.
2nd Lt. John D. Hill, Jr.
2nd Lt. Marshall H. Osburn.

Second Squadron and Machine Gun Troop 306th Cavalry Washington, D. C.

ON August 25, 1934, fourteen officers of the regiment completed fourteen days of active duty training at Fort Myer, Virginia.

The first week was spent at preliminary instruction in equitation and tactics for Group "C," and in equitation and cavalry weapons for Group "B."

On Tuesday, August 21, 1934, the regiment marched to Pohick, Virginia, where two days of instruction in the tactical handling of a cavalry regiment and brigade was carried out.

The regiment marched back to Fort Myer, Virginia, on Friday August 24, and on Saturday departed for home.

It was the unanimous opinion of the officers of the regiment that this was not only the most pleasant but was by far the most instructive fourteen days' training period they had ever attended.

307th Cavalry Richmond, Virginia

THE following men trained at Ft. Myer and Pohick Church, Va., during the period Aug. 12 to 25th in conjunction with other officers of the 62d Cav. Div.:

Lieutenant Colonel R. B. H. Begg, Commanding

307th Cavalry, Major M. S. Easby, Captain Hal P. Costolo, First Lieutenants C. E. Blue, Jr., G. H. Cosby, Jr., R. B. Batte, Gorham B. Walker, Jr., Adjutant, O. T. Jamerson, and Second Lieutenants Richard F. Beirne, Jr., Glen G. Dickenson, Jack L. Epps, Jr., Arthur R. Giesen, Leonard T. Preston, William T. Talman, William A. Trolan, Benjamin S. Clark, Jr., and Walter R. Tayloe.

Lieutenants Asher R. Payne, has been appointed a First Lieutenant, Med.-Res., and relieved from assignment to the 307th Cavalry.

The following named officers have been promoted recently to the grade of First Lieutenant, Cav-Res: 2nd Lieutenants Woods G. Talman, Lewis Proctor Thomas, Jr., and Elijah P. Montgomery, and Robert G. Southall, II.

First Lieutenant Frederick Sale and Second Lieutenant Jack L. Epps, Jr., assisted in the 4th of July "Massing of the Colors" ceremony conducted under the auspices of the Richmond Chapter, U. S. Coast Artillery Association.

Lieutenant George Cole Scott, Jr., has been relieved from assignment to this regiment.

Lieutenants Chas. E. Blue, Jr., and Walker Pettyjohn, Jr., have received their Certificates of Capacity for promotion to the next higher grades.

The following named officers of this regiment have received orders for another 6 months' tour of duty with the Civilian Conservation Corps: Captains Wm. M. Stokes, Jr., and Joseph J. Matthews, and Lieutenants Geo. W. Day, Woods G. Talman, Robert G. Southall, II, Sam H. Franklin, Jr., and L. J. Peyton.

Lieutenant Colonel Robert R. D. McCullough and Second Lieutenant R. P. Kelly, Jr., have recently been assigned to this regiment.

Second Lieutenant James Rivers Adams has been relieved from assignment to this regiment.

3d Squadron and Machine Gun Troop, 307th Cavalry Norfolk, Virginia

THE Unit Instructor Major James R. Finley, Cavalry, has been confined to Walter Reed General Hospital since July 28, Major Finley expects to be released late in September.

Ten new 2nd Lieutenants of Cavalry have been assigned to the Third Squadron and Machine Gun Troop since June 1st, bringing the total assigned officers of the squadron to 37, and Machine Gun Troop to 8. Eight of the new lieutenants attended active duty training at Fort Myer, Va., during the period June 17-30. All are graduates of the 1934 class of ROTC units.

Plans are being prepared for the inactive training season and each Cavalry reserve officer residing in or near Norfolk, Va., is going to be called upon to conduct Troop School instruction during the 1934-35 season.

308th Cavalry Pittsburgh, Pennsylvania

CAMP is over and we view it in retrospect again. This year Major H. C. Dagley, Cavalry, was the Senior Instructor and gave the officers who attended a well planned schedule which was carried out smoothly. All officers who attended expressed themselves as well satisfied with the instruction. The mess was excellent and added materially to the general welfare.

Perhaps the outstanding incident of the camp occurred when Captain Palmer commanding the Machine Gun Troop, 3rd Cavalry, turned to Lieutenant Colonel George H. Cherrington, commanding the Three O Eighth and remarked, "Colonel, there (indicating the targets) is a hostile body of troops. Here are your guns. Here (indicating the student officers) are your gun crews. Please take your target under fire." To say that Colonel Cherrington was not expecting this is to put it mildly. He went to work, however, without more ado, detailed gun crews, gave his fire orders and opened up.

Colonel Cherrington also fired the 37-mm. personally, and is now a strong admirer of that weapon.

Two new instructors, Major "Jimmy" Schwenck, and Harry Pendleton were welcomed to the Division with fitting ceremonies at Pohick.

862nd Field Artillery Baltimore, Maryland

THE officers of the 862nd Field Artillery have just completed a very successful and agreeable period of active duty training at Fort Hoyle, Maryland, from August 18th to September 1st. The officers of the 313th Field Artillery were also present during this period and the officers of the two regiments were organized and assigned to the 6th Field Artillery in their respective grades.

The command of the 6th Field Artillery was turned over to Colonel Leroy W. Herron of the 313th Field Artillery, and with Colonel Roger S. B. Hartz of the 862nd Field Artillery as regimental executive. The reserve officers performed their duties with the 6th Field Artillery in their respective grades, and it was universal feeling of all the officers that this had been the most successful system of training that has ever been afforded the reserve officers of these regiments.

Lieutenant Colonel John M. McDowell, Field Artillery, and Major Leroy W. Herron, Field Artillery, regular army instructors of the 862nd and 313 Field Artillery, respectively, supervised the instruction during this period of training.

The following reserve officers attended the camp and were assigned as follows:

Regimental Headquarters

C.O.—Colonel Leroy W. Herron
Exec.—Colonel Roger S. B. Hartz
Adj.—1st Lt. William S. Brady
S-3—1st Lt. Ornell C. Morris

Headquarters Battery

C.O.—1st Lt. Gordon V. Holcomb
1st Lt. Farrand Flowers

Service Battery

No assignment

Headquarters 1st Battalion

C.O.—Major Milton J. Landvoigt
Adj.—1st Lt. Fred E. Wilson

Hq. Btry. & C.T., 1st Bn.

1st Lt. Herman T. Johnson
1st Lt. Walter K. Jones

Battery A

C.O.—Capt. Julian T. Cromelin
1st Lt. Alexander L. Craighill
2nd Lt. Paul LeC. Brand, II
2nd Lt. John F. Kerkam

Battery C

C.O.—1st Lt. Edwin F. Fogerty
1st Lt. Carlye VanB. Funke
2nd Lt. William M. Kricker
2nd Lt. George M. Sigler

Headquarters 2nd Battalion

C.O.—Major John W. Middendorf, Jr.

Adj.—Capt. William W. Owens

Hq. Btry. & C.T., 2nd Bn.

2nd Lt. William A. Marshall, III
2nd Lt. Joseph F. Myers

Battery D

C.O.—Capt. Fletcher F. Steele. Exec.—1st Lt. Charles R. Potter, 2nd Lt. John R. Forsythe, 2nd Lt. Thomas H. Henry, Jr.

Battery F

C.O.—1st Lt. Irwin A. Lex. Exec.—1st Lt. Cecil H. Stroup, 2nd Lt. Richard A. Dimon, 2nd Lt. Charles C. Vogt.

All officers at this camp felt that the training period had been a most profitable and enjoyable one and were especially grateful to Colonel Laurin Lawson, C. O. 6th Field Artillery, for the opportunities thus afforded them and the many courtesies which he and the officers of the garrison extended to them during their period of training.

Modern Cavalry

(Continued from page 13)

If history, then, teaches us that cavalry can unfold its greatest capabilities, only if the High Command employs it properly, both as to time and place, this requisite sounds so simple and plausible that we may be tempted to dismiss it as a matter of course. And yet it is a tremendously difficult problem and presupposes a leader of supreme native endowment, one who will recognize long in advance where and when to employ his cavalry. Such commanders, however—that is to say, men who will make the history of their times—are rare geniuses and only seldom are they presented to a nation.

Efficiency — Tactical or Technical?

(Continued from page 29)

should not be kept out of the units making the mounted attack. And again, it will happen that a force ordered to make an attack, mounted if practicable, has as its objective hostile reserves, and it is not definitely known what or where the enemy reserve is, nor how it will meet the attack. Consideration of such cases, and of others that may be visualized, clearly shows the desirability of taking the light machine guns along with the maneuvering or attacking force.

We now have the light machine gun, and it is regarded as an efficient weapon of its type. Our horse cavalry is fortunate in having it. Cavalrymen must decide what place in our organization it deserves.

There can be but two places for it, as follows:

First—In a separate light machine gun unit; a squad in the rifle platoon; a platoon in the rifle troop; a troop in the squadron, or the regiment. This may please the cavalry officers who desire to have the responsibility for training gunners turned over to specialists, and undeniably it will promote the *technical efficiency* of the light machine gunners.

Second—Within the rifle squad. If this is the solution, then increase the present rifle squad by the addition of the three-man gun crew, making, in all, eleven riflemen and gunners. Details of the mounted drill for such a squad present no difficulty. This will result in making all horse cavalry rifle units similar and homogeneous; will insure uninterrupted action of the gun in dismounted combat; and will promote the *tactical efficiency* of the rifle squad.

It is fully realized that placing the light machine gun within the rifle squad will impose an added training responsibility upon the corporal. However, we now expect the rifle squad corporal to command in action the light machine gun and crew, when the latter are merely attached to him for battle. Why not let the corporal train his gunners where the latter are employed in action—within his own squad?

When all else is said and done, it is the squad that does the actual fighting, under its leader the corporal, who is the end link in the chain of command. Without detracting in the least from the talent of a brigade commander and all his subordinates down to the squad leader, it may be stated that the result secured by the brigade in battle is no more than just the sum of a hundred squad battles.

Symbolic Rites at Fort Robinson

(Continued from page 39)

live." . . . "We are dedicating today these stones with their respective inscriptions to the memory, not only of the two distinguished heroes whose names they bear, but to those immortal principles for which they stand. They both represent, in equal measure and with mutual under-

standing, that inherent sense of pride in the life and name of their respective nationalities and their devotion to the cause of liberty, pursuit of happiness and the ideals of social justice and truth."

Selections sung by the Crawford male quartet, composed of Robert Hey, Ernest Metzger, Ernest Martin, and Ralph McHoes, included "Home on the Range" and "Tenting on the Old Camp Ground."

At the close of the latter selection, Miss Marian Wenzlaff, five-year-old daughter of Lieutenant and Mrs. T. C. Wenzlaff, unveiled the Lieutenant Robinson monument.

Ceremonies around the marker to Crazy Horse consisted entirely of natives Indian rituals, which began with the "Chief Song," sung by the chiefs. This song is sung only by chiefs at the grave of a departed chief.

Medicine Man Breast then performed the ceremony of the peace pipe in which he invoked the blessing of the Great Spirit on Chief Crazy Horse in his last happy hunting ground. Medicine Man Breast was selected for this rite, because he has never been known to commit an evil deed.

Upon completion of this part of the ceremony, the monument was unveiled by Chief Black Medicine, a nephew of Crazy Horse, who lives at present on the Rosebud Agency. Old Indians who knew Crazy Horse say his nephew greatly resembles him in appearance.

The Indian monument was veiled in red blankets, in accordance with the old tribal tradition that this affords protection against evil spirits.

The ceremony was concluded with a salute of eleven guns, equivalent to that given a brigadier general. The American flag was lowered from the parade staff, as the band played "The Star Spangled Banner."

Fort Meade Polo, 1934

(Continued from page 71)

Pos.	Player	Hcp.	Pos.	Player	Hcp.
1	Capt. Bertholet . .	(0)	1	Lieut. Fleegeer . . .	(0)
2	Lieut. Bixel	(1)	2	Capt. Devine . . .	(3)
3	Lieut. Trapnell . .	(1)	3	Capt. Turner . . .	(0)
4	Lieut. Busbey . . .	(2)	4	Capt. Burt	(2)

Umpires: Capt. Buechler, Mr. Ogden.

MONDAY, AUGUST 27TH

Consolation Match

Fort Leavenworth (3)

Fort Des Moines (1)

TUESDAY, AUGUST 28TH

Finals

Fort Warren (12)

Fort Meade (3)

The committee in charge of arrangements expressed the desire to make the tournament an annual affair, with the idea of fostering polo in that section of the country. It is believed that such a plan would have the support of a great many polo clubs in the middle west, both military and civilian, due to the fact that Grand Island is centrally located and has excellent facilities for the management of such an event.

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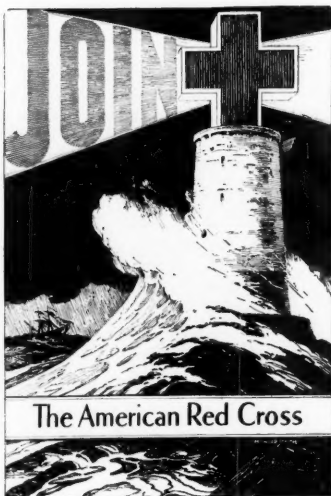
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